OREGON ENVIRONMENTAL QUALITY COMMISSION MEETING MATERIALS 01/28/1993



State of Oregon Department of Environmental Quality

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AGENDA

ENVIRONMENTAL QUALITY COMMISSION MEETING

January 28-29, 1993 DEQ Conference Room 3a 811 S. W. 6th Avenue Portland, Oregon

Thursday, January 28, 1993: Work Session beginning at 1:00 p.m.

- 1. Work Session: Presentation and Discussion of Findings on Wastewater Treatment Costs - A Case Study
- 2. Work Session: Informal Discussion of Current Issues Affecting the Department

Friday, January 29, 1993: Regular Meeting beginning at 8:30 a.m.

- Notes: Because of the uncertain length of time needed for each agenda item, the Commission may deal with any item at any time in the meeting. Times noted on the agenda are approximate. An effort will be made to consider items with a designated time as close to that time as possible. However, scheduled times may be modified if agreeable with participants. Anyone wishing to be heard or listen to the discussion on any item should arrive at the beginning of the meeting to avoid missing the item of interest.
- A. Approval of Minutes

- B. Approval of Tax Credits
- C-1. Pulp Mill Contested Case: Consideration of Agreement Regarding Enforceability of Dioxin and Other Provisions of the Order that are not Subject to Reconsideration
- C-2. Pulp Mill Contested Case: Petition for Withdrawal of Order Granting Reconsideration
- C-3. Petition for Rulemaking filed by Columbia River United
- D. Proposed Adoption of Temporary Rule Amendments to the Pollution Control Tax Credit Rules
- E. Status Report on the Total Maximum Daily Load (TMDL) Program
- F. Report on Tualatin Basin Nonpoint Source Control Program Implementation and Compliance Dates
- G. Request by Mapleton Commercial Area Owners Association for Waiver or Reduction in Water Quality Annual Compliance Determination Fee

11:30 a.m. Public Forum

This is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. Individual presentations will be limited to 5 minutes. The Commission may discontinue this forum after a reasonable time if an exceptionally large number of speakers wish to appear.

- H. (Withdrawn)
- I. Approval of Resolution for Sale of Pollution Control Bonds
- J. [†]Rule Adoption: Proposed Housekeeping Amendments to OAR Chapter 340, Divisions 13, 14, and 20 through 34
- K. Report to the Legislature: Status of Underground Storage Tank Financial Assistance Program (Section 62 of SB 1215)
- L. Report to the Legislature: Fourth Annual Environmental Cleanup Report
- M. Report to the Legislature: Sewage Treatment Works Operator Certification Program
- N. Periodic Rule Review
- O. Commission Members Reports (Oral)
- P. Director's Report (Oral)
- Q. Status Report on Legislative Proposals (Oral)

[†]Hearings have already been held on the Rule Adoption items; therefore any testimony received will be limited to comments on changes proposed by the Department in response to hearing testimony. The Commission also may choose to question interested parties present at the meeting.

The Commission has set aside March 5, 1993, for their next meeting. The location has not been established.

Copies of the staff reports on the agenda items are available by contacting the Director's Office of the Department of Environmental Quality, 811 S. W. Sixth Avenue, Portland, Oregon 97204, telephone 229-5395, or toll-free 1-800-452-4011. Please specify the agenda item letter when requesting.

January 28, 1993

WASTEWATER TREATMENT COSTS - A CASE STUDY

BRETT FRIED DECEMBER 31, 1992

INTERNSHIP REPORT PREPARED FOR THE DEPARTMENT OF ENVIRONMENTAL QUALITY 811 SW SIXTH PORTLAND, OREGON 97204

ACKNOWLEDGEMENTS

I would like to thank all the people from the State of Oregon, Department of Environmental Quality (DEQ), the James River Corporation and the city of Corvallis who have assisted me in gathering information for this study. In particular I would like to thank Tom Lucas, Elana Stampfer and Harold Sawyer from DEQ, George Appleton and Steve Wolfe from the James River Corporation, and Daniel Hanthorn and Tom Penpraze from the City of Corvallis. Finally, I would like to thank Dr. David Ervin, from Oregon State University, for providing essential support and guidance.

INTRODUCTION

Over the last 20 years, the state of Oregon has used permit regulations and other requirements to create a buffer of "assimilative capacity" and to maintain water quality standards. In the process of implementing these requirements and regulations, questions have arisen concerning the incidence of the associated benefits and costs. The goal of this project is to provide insight into the cost issue by estimating the selected cost measures of BOD (biochemical oxygen demand) removal at two wastewater treatment plants -- the Halsey Secondary Fiber Pulp Mill Wastewater Treatment Plant and the Corvallis Wastewater Treatment Plant.

Economic Concepts

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Society pays the costs to remove BOD and preserve a river's assimilative capacity, whether by public or private plants. Thus, it is in society's interest to minimize the total of public and private costs of meeting an assimilative capacity target. The cost estimates presented here help assess whether some social cost savings might be possible in reallocating treatment responsibility among the plants. The assignment of financial responsibility for achieving the potential cost savings to private and/or public parties is a separate question not addressed in this report.

The cost measures in this report require comment for proper interpretation. Three different measures are used -- total, average, and marginal costs. <u>Total cost</u> reflects all resources used for current treatment, the plant and equipment, labor, materials, etc. Because total cost obviously varies by the amount of waste requiring treatment, the <u>average cost</u> per unit of treatment is useful to account for plant size differences. Finally, the <u>marginal cost</u> of treating one

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more or one less unit of waste reveals the increase or decrease in expenses at the margin of operation (in contrast to the average over all units). In general, the total social cost of removing a given level of BOD contributed by two plants is lowest when the marginal costs of the last treated unit are equal for each plant. If not, the total cost could be reduced by shifting more treatment to the lower marginal cost plant.

For this study, marginal costs could be estimated only for one plant due to incomplete data. Therefore, average treatment cost data are used to compare across plants. Two types of (annual) average costs are computed. The first is average construction costs, the annual expenses necessary to recoup the investments made when the plant was built and replace it at the end of its useful life. This cost concept is referred to as an average fixed cost because in the short-run the plant and equipment cannot be changed. The second is average operation costs and reflects the labor, materials, etc., to run the plant and equipment. These operation costs vary in the short-run with treatment level. When the average construction and operation costs are added, the resulting figure captures the average total costs of treatment, given the fixed plant and equipment.

Water Quality Context

Oregon's rivers have traditionally been used for food, recreation, navigation, power generation, irrigation and waste disposal. In the 1920's, the Willamette River, which flows through Oregon's most populous valley, was used so heavily for waste disposal that it resembled an "open sewer" (DEQ Brochure). The situation on the Willamette became so critical that in 1938 Oregonians voted to create the State Sanitary Authority.

In 1969, the name of the Sanitary Authority was changed to the Department of Environmental Quality (DEQ). DEQ, the agency responsible for administering federal and state

wastewater statutes, requires National Pollution Discharge Elimination System (NPDES) permits for all commercial, industrial or government bodies discharging wastewater into public waters.

Although standards are mandated for a number of pollution parameters, the 5-day BOD (BOD_5) and 5-day Carbonaceous Biochemical Oxygen Demand $(CBOD_5)$ are the only parameters considered in this study. BOD₅ and CBOD₅ refer to the "amount of oxygen consumed by bacteria in a sample of effluent incubated over a period of five days under controlled temperature and light conditions" (Kneese and Bower, 1968:247). CBOD₅ differs from BOD₅ in that it does not include the amount of nitrogenous biochemical oxygen demand.

Aside from the BOD_5 parameter (or equivalent $CBOD_5$ standard), the other major environmental quality parameter for both the Halsey treatment plant and the Corvallis treatment plant is Total Suspended Solids (TSS). However, because BOD_5 and TSS are jointly removed in the treatment process, these parameters provide alternate measures of performance (Frass and Munley, 1984:29).

Controlling discharge into rivers is complicated by the quality (concentration of BOD_5) and quantity (flow of influent or effluent) dimensions of waste streams. This dual nature of waste streams has led to the use of mass load limits (concentration times flow) in setting waste discharge standards. For example, the monthly average mass load limits for BOD_5 , at the Halsey plant, are 2,000 lbs./day for the dry season and 3,120 lbs./day for the wet season. Although the use of mass load limits constrains the allowable concentration of pollutants and volume of the wastestream, concentration limits have often been required to insure that federal guidelines are met and that water treatment plants operate continually throughout the year (Sawyer, 1992).

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Mass load limits and other standards do not come without costs. In this paper, a case study of a private firm, James River Corporation, and a municipality, the city of Corvallis, is undertaken to provide some insight into the incidence of wastewater treatment costs.

The paper is divided into four sections.

- (1) A short background discussion of the Halsey Secondary Fiber Wastewater Treatment Plant and the Corvallis Wastewater Treatment Plant.
- (2) A discussion of the economic analysis, including the methods used for estimating costs at each site.
- (3) A comparison between the capital and operating costs of wastewater treatment at the two plants. The costs are broken down into (1) total costs of wastewater treatment, (2) average costs per pound of BOD₅ removed, (3) average costs of primary treatment per pound of BOD₅ removed during primary treatment, and (4) average costs of secondary treatment per pound of BOD₅ removed during secondary treatment.
- (4) An application of an economic model using performance data from the Corvallis Wastewater Treatment Plant to estimate marginal costs for changes in effluent quality.

BACKGROUND

James River Corporation

In June 1990, the James River Corporation began constructing a \$65 million secondary fiber de-inking mill in Halsey, Oregon. Prior to the start-up of the de-inking mill in March of 1992, the Halsey Paper Mill (owned and operated by James River Corporation) was supplied with bleached kraft pulp by the adjacent Pope and Talbot Pulp Mill. Besides supplying the necessary pulp, Pope and Talbot also treated the sanitary and production waste from the James River paper mill in its wastewater treatment plant.

Currently, the effluent from the paper mill and secondary fiber mill are being treated at the

wastewater treatment facility in the new plant. Sanitary wastes from the James River plant are now the only discharge from James River being pumped to Pope and Talbot for treatment.

The James River Corporation expects to process about 500 tons of office paper a day at their Halsey plant. This will result in approximately 300 tons of paper pulp (Appleton, 1992). The wastes generated from the production of the paper pulp and white water coming from the paper mill include both solid waste and effluent. The solid waste is disposed of in the Coffin Butte Landfill near Corvallis, and the treated effluent flows into the Willamette River.

James River Corporation's NPDES wastewater discharge permit for the secondary fiber pulp mill and the paper mill was approved on February 28, 1992. The parameters listed in the James River NPDES waste discharge permit include flow rate, BOD₅, TSS, pH, total phosphorous-P, ammonia-N, dioxin, total recoverable metals and bioassays. The Corporation uses an activated sludge treatment system. The principle behind activated-sludge treatment systems is to use a process of aerating and agitating a mixture of wastewater and biological sludge to promote the consumption of organic matter by micro-organisms.

The City of Corvallis

Corvallis, located approximately 15 miles down river from Halsey, is a municipality with a total population of 44,525. The majority of waste being treated at the Corvallis Wastewater Treatment Plant is residential. Corvallis does, however, have a pretreatment program for industrial users. The two Corvallis industries required to meet federal pretreatment standards, are Hewlett Packard and United Chrome. The standards listed in the Corvallis NPDES permit are CBOD₅, fecal coliform, pH, TSS and chlorine residual.

In the 1960's the existing primary treatment facilities were augmented by the addition of a trickling filter system. The principle behind trickling filters is to use bacteria growing on stones or other material to remove organic matter from the wastewater.

In 1978 the treatment plant was upgraded and an activated sludge treatment system was added. Corvallis now uses a combination of a trickling filter and activated sludge treatment system. This particular system was pioneered at the Corvallis plant. In Corvallis's NPDES permit it is referred to as a Trickling Filter - Solids Contact Treatment System. The effluent from the wastewater treatment plant flows into the Willamette River.

THE ECONOMIC ANALYSIS

Economic cost analysis attempts to explain how firms purchase and combine various inputs to produce desired goods and services (e.g., wastewater treatment). By understanding how the inputs are combined, the effects of different standards, flow rates, influent concentrations, prices or other factors can be evaluated. Both the municipality of Corvallis and the James River Corporation combine labor, land and capital to provide wastewater treatment. Although wastewater treatment plants can treat for a variety of environmental quality parameters, the focus of this study will be on the removal of BOD_5 .

The economic models most frequently used to estimate the cost of wastewater treatment are engineering based. These models usually relate design flow to costs at different treatment levels (e.g., primary, secondary or tertiary). Frass and Munley (1984:30) argue that these approaches are inadequate because they do not address the relationship between performance (e.g., treatment quality) and costs within each treatment level. Thus, Frass and Munley have proposed the use of a model, where the marginal cost per pound of BOD₅ removed can be related to different levels of effluent quality, influent quality, volume of the wastestream and prices of the factor inputs (see Appendix I).

Criticism of the Frass and Munley model centers upon their assumption that wastewater treatment cost curves are continuous. Estimated cost functions in some empirical studies support the contention that the "lumpy" nature of changes in wastewater treatment technology result in discontinuous cost curves (McConnell et al., 1988).

In this study, the Frass and Munley (F&M) approach will only be used to estimate O&M marginal costs for the Corvallis wastewater treatment facility. The F&M approach (see Appendix III) is not used for estimating costs at the Halsey treatment plant because Frass and Munley only used data from publicly-owned treatment works to construct their empirical model (1984:33).

Because a similar model does not exist for estimating the costs of wastewater treatment at secondary fiber wastewater treatment plants, marginal costs are only estimated for the Corvallis treatment plant. Cost comparisons between the two treatment plants are thus limited to average and total cost estimates.

In order to understand these cost comparisons between treatment plants it is necessary to consider some of the differences in wastewater treatment between the Corvallis and Halsey facilities. The following differences were identified by individuals at the Corvallis plant, the Halsey plant and DEQ.

- 1) The Halsey wastewater treatment plant will not experience the large variance of flow levels that the municipality experiences. Because flow is a function of the industrial process, the James River plant will not experience the fluctuations in flow levels that the municipality experiences. Flow variability, at the municipality, is further exacerbated by overflow from the combined sewer collection during high water conditions, and rain seepage into sewer pipes. For Corvallis, the design flow is 9.7 mgd from May 1 to October 31 and 17.8 mgd from Nov. 1 to April 30. For James River Corporation's design flow is 3.5 mgd all year (Appleton, 1992).
- 2) Municipalities incur large expenses in constructing, operating and maintaining wastewater conveyance systems. Although the type and efficiency of the collection system can affect the costs of wastewater treatment, these costs are not included in this analysis.
- 3) James River Corporation's ability to control production processes gives it more control over the constitution of its influent. For James River, the quality of the influent is a function of known industrial inputs. Corvallis, however, has to build in flexibility to compensate for its limited ability to control the quality of the influent. Municipal control of the quality of its influent is currently limited to a mandated pretreatment program which is used to regulate influent quality at the United Chrome and Hewlett Packard sites.
- 4) James River Corporation is not subject to a fecal coliform standard. James River Corporation is not subject to a fecal coliform standard because it pipes all of its sanitary wastes to Pope and Talbot. Corvallis, however, must disinfect its effluent

- 5) The strength and composition of the influents are different. The BOD_5 concentration of the James River influent is approximately 10 times higher than the BOD_5 concentration of the Corvallis influent. Additionally, the composition of the James River influent is a function of its industrial processes whereas the Corvallis influent is mostly residential waste.
- 6) The BOD₅ standards are different. In the Corvallis permit, which is being reviewed by the DEQ, the allowable average CBOD₅ effluent concentration is 10mg/l for May 1 through October 31 (the dry season) and 25 mg/l (the wet season). Additionally, the monthly average pounds of CBOD₅ is 809 for the dry season and 2022 for the wet season. CBOD₅ is used instead of BOD₅ because at higher levels of treatment nitrogenous BOD₅ becomes a factor. At or below 10 mg/l of BOD₅, the EPA considers CBOD₅ and BOD₅ equivalent (Hanthorn, 1992). The allowable BOD₅ limitations for the James River Corporation are 2000 pounds for the dry season and 3,120 pounds for the wet season (DEQ, 1992). With a flow of 3.5 mg/l, this would translate into a concentration of 68.5 mg/l of BOD₅ in the dry season and 106.9 mg/l BOD₅ in the wet season.

There are other differences between wastewater treatment at Corvallis and James River, including testing requirements and TSS standards.

Although these differences complicate comparisons between industrial and municipal wastewater treatment costs somewhat, the major treatment parameters are the same for both James River and Corvallis. In this study, pounds of BOD_5 (or equivalent pounds of $CBOD_5$) removed is the performance parameter used in calculating average costs. Total costs of treatment are also presented to describe the relative magnitude of O&M and construction costs at each facility, and marginal costs of treatment changes are analyzed for the Corvallis facility.

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TOTAL AND AVERAGE COSTS

Total and Average Costs for Total Wastewater Treatment

For wastewater treatment, total cost figures can provide useful information on the magnitude of costs and how these costs are split between operation and maintenance (O&M) and capital (plant and equipment). O&M costs are often referred to as variable costs in that they can be altered to achieve different treatment quality given a fixed capital base. The capital costs can only be varied over a longer period.

The Corvallis total annual O&M cost figure (see table 1) represents the actual amount spent on O&M in 91/92. The total annual capital cost figure was developed in three steps. First, an estimate of \$13.7 million, for constructing the wastewater treatment facilities, was obtained from the city of Corvallis (Penpraze, 1992). This \$13.7 million estimate was in 1977 dollars. Second, the Engineering News Record Construction Cost Index was used to convert the \$13.7 million from 1977 dollars to 1991 dollars. Finally, the 1991 amount was amortized over 20 years using an amortization rate of 10 percent. This 10 percent figure reflects both interest and expected inflation. The resulting estimated total annual capital cost of approximately \$2.9 million is almost three times the total annual O&M cost of \$1.08 million. The capital costs were defrayed somewhat by an EPA grant that paid for at least 50 percent of the costs of the 1978 wastewater treatment upgrade (Hanthorn, 1992).

TABLE 1CITY OF CORVALLIS (CV) AND JAMES RIVER (JR) - WASTEWATERTREATMENT ANNUAL TOTAL COSTS AND AVERAGE COSTSOF REDUCING BOD

	Total Cost (\$ Million)		Average Cost [*] (\$ Per Pound)		
	Corvallis	James River	Corvallis	James River	
O&M	1.08 ^b	8.58°	0.35	0.42	
Construction ^d	2.87°	1.53	0.94	0.07	
Construction and O&M	3.95	10.11	1.29	0.49	

*The averages are calculated by dividing the relevant cost by the annual number of pounds of BOD₅ removed. The annual number of pounds of BOD₅ removed is approximately 20.4 million for James river and 3.1 million for Corvallis.
*O&M costs are for the period July 1, 1991 to June 30, 1992.

^cO&M costs are estimated using 1992 data to forecast 1993 costs. Projected 1993 costs are then deflated to 1991 using a simple 5 period average derived from the pollution abatement and control index in the Survey of Current Business (1992:35).

^dEstimated construction costs are for 1991 and were amortized over a 20 year period.

^eEstimated construction costs were corrected for inflation using the construction cost index from the Engineering News Record (1992:47).

For James River, the total 1991 construction cost was amortized over 20 years using an equivalent interest rate of 10 percent. George Appleton, a representative of James River Corporation, felt that the 20 year figure was unrealistic and that 50 years was a better estimate. However, even with the 20 year estimate, the total annual construction costs of approximately \$1.5 million are substantially less than those of the municipality (see table 1). This could reflect many factors, including less variability in flow, lower capacity, less variability in the influent composition, improvements in technology and the ability of James River to reduce wastewater treatment costs through control of its industrial processes.

Because James River began operating its wastewater treatment facility in March of 1992 and was on its start-up curve for most of this time, O&M costs were forecasted for the year 1993. These O&M costs were then deflated to 1991 dollars using a forecast derived from the Survey of Current Business' Pollution Control and Abatement index. Total O&M costs for James River are higher than those of Corvallis, perhaps because of the additional treatment costs incurred due to higher concentrations of TSS and BOD₅. Specifically, these higher concentrations of BOD₅ and TSS would tend to increase sludge disposal costs and chemical costs.

For comparison purposes, a performance based measure, such as the average cost per pound of BOD_5 , removed is more useful than a total cost figure. Average costs are computed by dividing the total annual costs by the total annual pounds of BOD_5 removed at each plant.

The average construction costs for Corvallis are more than 13 times larger than the James River average construction costs (see table 1). This is partially a reflection of the larger estimated number of pounds of BOD_5 removed by James River (over twenty million) compared to Corvallis (approximately three million).

Despite the larger number of pounds removed, James River still, has a slightly higher average O&M cost than Corvallis. Combining both averages (the average O&M cost plus the average construction cost) it appears that (see table 1) more BOD_5 is being removed for less money at the Halsey Wastewater Treatment plant than at the Corvallis Wastewater Treatment Plant.

The total and average costs of wastewater treatment, however, do not provide a great deal of insight into where these costs are being realized. One way to achieve further understanding of differences in cost structures and a clearer picture of how changes in BOD₅ standards would affect the cost per pound of BOD₅ removed is to derive average costs by treatment level. For example, if the analysis is for the short-run (i.e., plant capacity and technology remain constant) and a new attainable change in the BOD₅ standard is proposed, then the average O&M costs for secondary treatment would more accurately reflect the resulting changes in O&M costs than the average total (primary, secondary and sludge disposal) O&M cost figure. This is true for the short-run because BOD₅ removal during the primary process is incidental to the removal of solids. In the long run, plant treatment capacity and technology could be changed which might alter the structure as well as the level of O&M costs.

Total and Average Costs for Primary and Secondary Treatment

An empirical difficulty encountered when estimating average and total wastewater treatment costs by treatment levels is the division of costs between primary and secondary treatment. For Corvallis, EPA estimates were used to estimate the percentage of total annual construction or O&M costs attributable to primary or secondary treatment. These costs are then divided by the annual pounds of BOD₅ removed during primary or secondary treatment to obtain average costs

by treatment level. For example, to derive the \$.37 average O&M cost for primary treatment at Corvallis, the 91/92 O&M cost for primary treatment (\$400,756) was divided by the 91/92 total number of pounds of BOD₅ removed in the primary process (1,071,657). In the James River case, data were available to allocate costs between primary and secondary treatment processes.

For Corvallis, the average O&M costs associated with secondary treatment are higher than those associated with primary treatment. However, the greater removal of BOD₅ in the secondary process (65%) results in the cost per pound of BOD₅ removed being less for secondary treatment. Additionally, the total annual construction costs associated with secondary treatment are higher than the total annual construction costs associated with primary treatment (see table 2). This does not hold true for James River, where the total annual secondary and primary treatment are construction costs are almost identical but the total annual O&M costs for primary treatment are more than double the total annual O&M costs for secondary treatment. This outcome is a direct reflection of the estimated 1.8 million dollars that James River must pay for polymers in its primary treatment process to remove TSS. In contrast, Corvallis spent less than \$23 thousand on "chemicals/lab supplies" in 91/92.

TABLE 2

CITY OF CORVALLIS AND JAMES RIVER- WASTEWATER TREATMENT ANNUAL TOTAL COSTS AND AVERAGE COSTS OF REDUCING BOD BY TREATMENT LEVEL

	Primary *	Secondary
Corvallis -		· · · · · · · · · · · · · · · · · · ·
Total Cost ^b (\$1000)		
Construction	585°	2,258 ^d
O&M°	401	589
James River -		
Total Cost ^b (\$1000)		
Construction	555 ^t	592 ^g
O&M	2,160	960
Corvallis -		
Average Cost (\$/lb.)		
Construction	0.54	1.13
O&M	0.37	0.30
James River -		
Average Cost (\$/lb.)		
Construction	0.04	0.08
O&M	0.16	0.13

*An EPA estimate of 35% is used for the percentage of total lbs. of BOD_5 that are removed in the primary process (see EPA, 1979:4).

^bCosts associated with sludge disposal have not been included.

^cConstruction costs associated with influent pumping, grit removal, comminution, preliminary treatment, primary sedimentation, chlorination and relevant costs associated with the construction of the control/lab/maintenance building (see Appendix B).

^dConstruction Costs associated with the utilization of trickling filters, activated sludge, chemical additions, contact stabilization, anaerobic digestion and relevant portion of the costs associated with the construction of the control/lab/maintenance building (see Appendix B).

^eAn average of the EPA and AMSA survey estimates of 47% and 34% of O&M costs attributable to primary treatment (EPA, 1978:4-16 & 4-18) is used for this estimate. The 47% (35/74) and 34% (27/80) figures do not directly correspond to those in the tables because solids handling is not included as a category. The average of 40.5% of O&M costs is then attributed to primary treatment.

^fConstruction costs associated with influent pumping, primary treatment and sedimentation. Includes costs associated with making chemical additions and relevant portion of control/lab/maintenance building.

^gConstruction costs associated with utilization of activated sludge, chemical additions, extended aeration and relevant portion of the control/lab/maintenance building.

For James River, the average construction costs within each performance class (secondary or primary treatment) are low compared to the average operation and maintenance costs within each performance class. Surprisingly, the average operation and maintenance costs for both primary and secondary treatment are lower for James River than for Corvallis (see table 2). This is surprising because James River's average total O&M costs were higher (see table 1). The reason average costs of O&M by treatment level are so much lower than average total costs of O&M is that sludge disposal costs were not included in the calculation of the average costs by treatment level. This division of costs between primary treatment, secondary treatment and sludge disposal costs is consistent with EPA's cost analyses (see EPA, 1978:4-18). Sludge disposal costs are far from incidental to James River, which has estimated 1991 O&M costs (including tipping fees at the landfill) of approximately \$5.4 million for sludge disposal. This is more than fifty times larger than the 91/92 O&M sludge disposal costs of approximately \$90 thousand for Corvallis.

Although average costs by treatment level can result in a clearer picture of the cost structures of the Corvallis and James River wastewater treatment costs, it still neglects information on the relationship between costs and performance standards within treatment levels. The Frass and Munley approach (1984) is an attempt to rectify this weakness for municipal wastewater treatment costs. Unfortunately, there is not a comparable model for industrial wastewater treatment costs.

EMPIRICAL APPLICATIONS OF THE FRASS AND MUNLEY MODEL

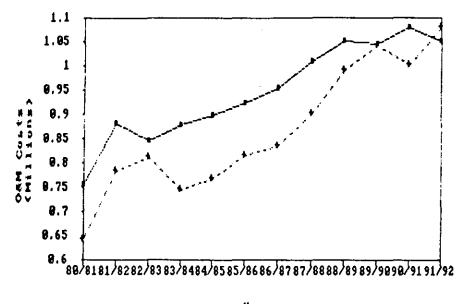
Frass and Munley (1984) estimate an ordinary least squares (OLS) regression equation using EPA data from 107 publicly-owned treatment works. This estimated equation relates O&M costs to average actual effluent concentration, average actual influent concentration, average actual flow and average capacity utilization (see Appendix III.). Therefore the estimated costs are based on actual performance, not engineering estimates. To test the applicability of this model to Corvallis wastewater treatment operation, Frass and Munley's estimated equation is used to derive predictions of Corvallis' O&M costs. These predictions are then compared to the reported actual O&M costs.

The model seems to predict well, with the largest deviations from the true model being estimates in 80/81 and 83/84 that were 18 percent higher than the true value (see figure 1). The average capacity figure in table 3 is derived by dividing actual flow by design flow. An average between the dry weather flow (9.7) and the wet weather flow (17.8) is used for the design flow measure. Additionally BOD₅ measures, not CBOD₅ measures, are used wherever possible because Frass and Munley used BOD₅ measures to estimate their model.

FIGURE 1

CITY OF CORVALLIS - O&M COSTS

WASTEWATER TREATMENT (Frass and Munley)



Year * ESTIMATED COSTS + IRUE COSTS

TABLE 3

(1) Year	(2) Avg. Flow mgd	(3) Avg. Inf. BOD _s mg/l	(4) Avg. Eff. CBOD ₅ mg/1	(5) Avg.* Eff. BOD ₅ mg/l	(6) Avg. Capa. Util.	(7) Est. Cost 1976(\$)	(8) Est. ^b Cost (\$)	(9) True ^c Cost (\$)	(10) Percent of True Cost
91/92	7.68	155.25	7.50	15.66	0.56	472892.75	1048491.89	1079378	97
90/91	8.36	160.33	6.83	11.75	0.61	500061.09	1078256.73	1002115	108
89/90	8.37	170.75	7.25	15.41	0.61	498326.38	1046290.75	1042118	100
88/89	9.07	177.67	6.41	14.67	0.66	518396.16	1049954.72	990182	106
87/88	8.43	147.75	5.87	****	0.61	516177.56	1008159.30	899182	112
86/87	8.52	131.83	5.92	****	0.62	503709.41	953309.41	832219	115
85/86	8.57	125.33	6.00	****	0,62	498127.35	922313.92	814527	113
84/85	9.32	129.17	6. 08 ^d	7.10°	0.68	509790.88	898108.15	765318	117
83/84	11.07	105.33	****	6.58	0.80	516534.69	878714.29	743496	118
82/83	11.30	103.33	****	6.00	0.82	521019.21	844620.98	8122648	104
81/82	11.11	158.02	****	6.25	0.81	572082.97	881588.79	784372	112
80/81	8.25	180.46	***	5.92	0.60	537393.99	755710.29	639893	118

FRASS AND MUNLEY O&M COSTS MODEL CITY OF CORVALLIS - WASTEWATER TREATMENT PREDICTIONS VERSUS REPORTED ACTUAL VALUES

^aBOD₅ effluent concentrations are the chosen parameter for this analysis. However, for 87/88, 86/87 and 85/86 these figures were not available and CBOD₅ data were used instead.

^bEstimated costs were corrected for inflation using price indexes (current price index/time t price index) from the "Survey of Current Business: Pollution Abatement and Control by Sector and Type" (U.S. Department of Commerce, 1992). Additionally, the 1991 index figure was forecasted using a simple 5 period moving average.

^cTrue costs for 89/90 were not available, so estimated actual costs were used instead. Estimated actual costs are computed every six months and usually exceed actual costs. For each of the 5 years from 86/87 to 90/91, \$50,000 was subtracted from actual costs because of a replacement fund that was listed under O&M expenses but never used for O&M. Ten thousand dollars was also subtracted from every year with the exception of 91/92 to account for a vehicle fund that was never used (Hanthorn, 1992). Additionally, expenditures on the United Chrome cleanup were not included.

^dEffluent BOD₅ concentration data were only available for the months July through November.

^eEffluent CBOD₅ concentration data were only available for the months December through June.

Another approach is to use the average dry weather flow and the $CBOD_5$ effluent figures in the model. The dry weather flow is used because this parameter is often considered synonymous for design flow. Additionally, the use of the BOD₅ instead of the CBOD₅ parameter could be seen as misleading because at higher treatment levels nitrogenous BOD₅ interference occurs. In fact, the EPA considers CBOD₅ and BOD₅ concentration limits at or below 10 mg/l as being equivalent (Hanthorn, 1992). After making these changes, the largest deviation from the true value was 13 percent in 91/92 (see Appendix IV). Since in both cases, when CBOD₅ and 9.7 mgd is used or when BOD₅ and 13.75 mgd is used, predictions from the O&M model are close to the true values, this model will be used to predict marginal costs for different levels of effluent quality (see table 4).

In computing the marginal cost per pound of pollutant removed at different levels of effluent quality, the 13.75 mgd average design flow is used (see table 4). Changing the design flow measurement to 9.7 mgd does not appreciably alter the marginal cost trend. An assumption inherent in the calculations used in the estimation of the marginal cost for changes in effluent is that the performance parameters (avg. flow, avg. inf., avg. cap. util.) remain constant. Since changes in any of these parameters would alter the costs the marginal costs are only relevant for the case study data being analyzed.

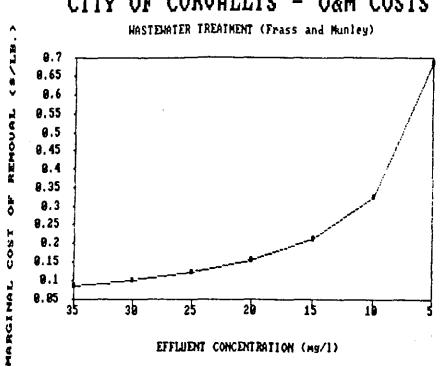
TABLE 4

CITY OF CORVALLIS - WASTEWATER TREATMENT MARGINAL COST PER POUND OF POLLUTANT REMOVED (91/92) AT DIFFERENT LEVELS OF EFFLUENT QUALITY USING THE FRASS AND MUNLEY MODEL

(1) Avg. Eff. BOD₅ mg/l	(2) Avg. Flow mg/l	(3) Avg. Inf. BOD ₅ mg/l	(4) Avg. Cap. Util.	(5) Est. Cost 1976 (\$)	(6) Index ^a Conv.	(7) Marg. O&M Cost 1992(\$)
5	7.68	155.25	0.56	0.306	2.22	0.68
10	7.68	155.25	0.56	0.146	2.22	0.32
15	7.68	155.25	0.56	0.094	2.22	0.21
20	7.68	155.25	0.56	0.069	2.22	0.16
25	7.68	155.25	0.56	0.054	2.22	0.12
30	7.68	155.25	0.56	0.045	2.22	0.10
35	7.68	155.25	0.56	0.038	2.22	0.09

^{*}The price indexes used to develop conversion factors are from the "Survey of Current Business: Pollution Abatement and Control by Sector and Type" (U.S. Department of Commerce, June 1992). Additionally, the 1991 index figure was forecasted using a simple 5 period moving average.

FIGURE 2



CITY OF CORVALLIS - O&M COSTS

*Lines drawn between points on the graph, corresponding to effluent concentrations seen in table 4, do not reflect marginal cost estimates. They are only included to aid the reader in picturing potential continuous relationships.

It is clear from figure 2 that as environmental quality is increased the estimated marginal O&M costs increase at an increasing rate. Particularly notable is the large jump in costs between 10mg/l and 5mg/l.

INTERPRETATION

Differences in flow variations, technology, concentration of influent, composition of influent and effluent quality standards complicate comparisons between municipal and industrial wastewater treatment costs. In fact, part of the usefulness of this analysis is the identification of differences in cost components and structures.

Dissimilarities in types and sizes of equipment and time of construction make specific comparisons of construction costs between James River and Corvallis difficult. From tables 1 and 2 it is, clear, however, that James River's construction costs were substantially less than those of Corvallis.

With O&M costs it is possible to probe deeper into the reasons for the differences in costs. Particularly dramatic is the higher level of total costs associated with chemical additions and sludge disposal at the James River Plant. Interestingly, these are both a function of the high concentration of suspended solids and BOD_5 in James River's influent. The advantage of being more informed about the cost structures of wastewater treatment at the two facilities is that a clearer picture emerges of how changes will affect these costs. For example, changes in treatment requirements that involve changes in the costs of sludge disposal or changes in the levels of polymer usage would affect the costs at James River more than at the municipality. However, changes in disinfection standards or

flow variations would have a greater impact at the municipality.

An additional advantage is being able to compare average costs across performance classes. This comparison is made more complicated by the difference between the level of cost associated with sludge disposal. Because sludge disposal costs are not included in the cost evaluation by performance class a direct comparison could be misleading.

A weakness of the treatment level cost analyses is that variations in costs within each treatment level are ignored. Because a performance-based industrial model was not found, only a municipal model was used for this type of analysis. This model was then used to estimate marginal operation and maintenance costs at different levels of effluent quality. By estimating how O&M costs increase at an increasing rate beyond a certain level of effluent quality, the tradeoffs inherent in requiring more or less pollution abatement become evident (see figure 2). Additionally, other variables such as the flow parameter could be changed in order to estimate how this would affect costs. The Frass and Munley model, or a similar performance-based model could be particularly useful for comparing marginal operation and maintenance costs of different municipal treatment plants.

PROBLEMS AND SUGGESTIONS

Some of the problems encountered in conducting this analysis included: (1) estimating the interest and inflation rates and the lifespan of capital, (2) estimating which costs should be included under primary or secondary treatment, (3) estimating the number of pounds of BOD_5 removed by treatment level, (4) estimating annual operating and maintenance costs for a firm that has only been

in operation for 7 months, and (5) relying solely on the BOD_5 parameter as the indicator of effluent quality.

Although the choice of a 10 percent interest rate is somewhat arbitrary (see Frass and Munley), the ratio of annual construction costs at the Corvallis Plant to annual construction costs for the Halsey Plant is independent of the interest rate. Thus, for comparison purposes the level of the interest rate is inconsequential. Inflation rates, however, are not inconsequential and were calculated using the appropriate indexes.

The choice of 20 years for the lifespan of the wastewater treatment plants is an EPA estimate specific to municipal treatment systems (1979:7). The 20 year time period was chosen to provide conservative estimates of the differences between these costs. Amortizing over more years for the industrial facilities than the municipal facilities would lower the estimated annual construction costs for the Halsey plant and serve only to accentuate the differences that are already evident.

Another problem is dividing the cost among the primary and secondary processes. For Corvallis, National EPA estimates of the percentage of total costs associated with primary and secondary treatment were used (1978: (4-16)-(4-18)). For James River, these cost were provided on the basis of treatment level.

Aside from the division of costs between treatment levels, there is also the difficulty associated with determining how much BOD_5 is removed in each process. James River Corporation and DEQ estimates were used to estimate the pounds of BOD_5 removed by treatment level at the Halsey treatment plant and EPA estimates were used for the Corvallis treatment plant (1979:4). The Corvallis estimates were based on reported actual pounds removed whereas the James River estimates were estimates were based on the design parameters. This could be misleading in terms of actual pounds removed

because the pounds of BOD_5 in James River's effluent is averaging closer to 200 - 300 lbs. per day than 2,000 lbs. per day allowed by their permit (Appleton, 1992). However, because the total pounds removed is so large (over 50 thousand a day) this would only change the average cost figures slightly.

The Halsey pulp plant has only been operating since March of 1992. Because much of this time the mill was on its start-up curve O&M costs were estimated for 1993. These estimates were then deflated to 1991 dollars to facilitate comparisons. Additionally, no effort was made to determine the costs incurred by James River to facilitate water quality treatment by making changes in their industrial processes. For example, James River uses a mechanical, not chemical de-inking process which eliminates the need for chlorine bleaching.

The two major performance parameters for both James River and Corvallis are TSS and BOD_5 . Because removing TSS also removes BOD_5 , the BOD_5 parameter can serve as a proxy for the TSS parameter. Other parameters such as ph, total phosphorous-p, ammonia-n, recoverable metals or fecal colliform were not considered in this analysis.

POTENTIAL POLICY IMPLICATIONS

Despite the data shortcomings, the economic cost analysis can be used to suggest some wastewater treatment policy implications for these cases. A central question can be used to guide the discussion:

"If a private company owned both the James River and the Corvallis treatment plants and the treatment standard was tightened, how would the added treatment be allocated among the plants?"

The question deserves both short-run and long-run answers. Clearly, the short-run average costs of secondary treatment (Table 2) suggest allocating the added treatment to the James River plant. This conclusion would be in error only if the James River marginal cost were approximately three times higher than the average cost of \$.13 per pound, thus exceeding the Corvallis marginal cost of \$.32 per pound at a 10 mg/liter standard. Such a disparity would suggest that the James River plant is operating very close to capacity where marginal costs rise rapidly. The data do not suggest this is the case.

In the longer-term, the cost comparison should reflect any needed changes in construction costs to accommodate a tighter standard. Again, the average construction costs suggest that expanding the James River treatment technology would be less costly than for the Corvallis plant. This outcome is probably due to the improvements in technology between the Corvallis and James River plant construction, and the enhanced efficiency permitted by an internally controlled production system versus the largely uncontrollable municipal influent quantity and quality.

These conclusions are, of course, only applicable to the cases analyzed here. However, broader analysis could extend the usefulness of the analysis to multiple municipalities and industries and to account for longer-term economic adjustments.

Clearly, more work is needed. This is particularly true in light of the paucity of economic wastewater treatment work that has been completed on this topic. Most of the literature concerning wastewater treatment costs was completed in the late 70's and early 80's, possibly because of the

amount of available EPA grant money. Some possible areas for future research are:

- (1) Further application of the Frass Munley model to other municipalities. The resulting estimates of marginal costs per pound of pollutant removed could potentially be used to compare efficiencies of treatment at different municipal plants.
- (2) Perform a statistical and economic analysis of wastewater treatment costs across municipal plants within Oregon. The resulting performance-based model could potentially be used to examine how changes in different environmental quality parameters and differences in treatment technology would affect costs.
- (3) Perform a statistical and economic analysis of wastewater treatment costs across industries with similar influent qualities. The endogenous nature of industrial influent concentration and composition increases the level of difficulty associated with this type of analysis.

APPENDIX I - THEORETICAL MODEL

Frass and Munley (1984:30) assume that wastewater treatment costs are minimized subject to a given level of output. The output level is specified by the state and is dependent on the following production function:

$$Q = f(I, F, E, X)$$

where:

I = concentration of BOD in the influent

F = flow of the influent

E = concentration of BOD in the effluent

X = vector of factors of production

The objective function for the treatment plant is:

$$L = MIN X'P s.t. Q = f(I, F, E, X)$$
 with respect to X (1)

where:

P = a vector of prices for factor inputs.

The solution to the above constrained optimization will be a function with the following parameters:

$$C^* = f(I, F, E, P)$$
 (2)

Specifically, the cost function for the Corvallis wastewater treatment plant would be,

$$C_{m} = f(I_{m}, F_{m}, E_{m}, P_{m})$$
 (3)

Marginal cost functions can then be derived by differentiating with respect to pounds of BOD_5 removed.

APPENDIX II. - Corvallis - Primary and Secondary Treatment (see EPA, 1983:115 - 116)

UNIT PROCESSES AND OPERATIONS PRIMARY	CONST. COST MUNI 1983	PERC. OF TOTAL
	765010 7	
Influent Pumping	765219.7	
Grit Removal	120434.2	
Comminution	66602.43	
Preliminary Treatment	589941.6	
Primary Sedimentation	879056.3	
(1/2)Control Lab/Maint.	413856.2	
Chlorination	389651.7	
		20.34%
SECONDARY		
Trickling Filter	1669797.	
Contact Stabilization	3355804.	
Activated Sludge	3857362.	
Chemical Additions	661529.6	
(1/2)Control Lab/Maint.	413856.2	
Anaerobic Digestion	2492234.	
		78.53%
SLUDGE DISPOSAL		
Land Application	179103.0	
Mechanical Sludge Dry	0	1.13%
Gravity Thickening	Õ	
	15854450	
	10004400	

 $15854450 \ge 0.628013$ (Conversion factor to 1977 dollars) = 9,956,800,71

9956800.71 x 1.32 (Nonconstruction costs - see EPA, 1978;6-16) = 13,142,976.9

13142976.93 x 1.03 (City multiplier - See EPA, 1978:7-15) = 13,537,266.24

The percentage breakdown shown above is used for the division between primary and secondary processes. Sludge costs are not included. The 1992 Corvallis wastewater treatment construction costs are thus broken down into 78.53 percent for secondary, 20.34 percent for primary and 1.13 percent for sludge disposal. Interestingly the construction cost prediction in 1977 dollars is 13,537266 which is close to the estimate of 13.7 million by the city of Corvallis.

Appendix III. - Empirical OLS Equation for O&M Costs Determination (Frass and Munley, 1984: 32, 33)

LN(O&M Cost) = 10.17 + .79LN(Flow) + .24LN(Influent) - (21.4) (24.5) (2.64).07LN(Effluent) - .46LN(Capacity Utilization) (4) (1.42) (4.37)

N = 178 $R^2 = 0.78$

"The marginal cost per pound of pollutant removed at different levels of effluent quality" is obtained using the following equation:

MC = -0.000329 x (-0.07) x exp(10.17) x F^{-21} x I^{-24} x $E^{-1.07}$ x $U^{-.46}$ (5)

APPENDIX IV -

TABLE 4A FRASS AND MUNLEY O&M COSTS MODEL PREDICTIONS VERSUS TRUE VALUES USING CBOD AS THE EFFLUENT PARAMETER AND DESIGN DRY WEATHER FLOW AS THE DESIGN FLOW

(1) Year	(2) Avg. Flow mgđ	(3) Avg. Inf. BOD ₅ mg/l	(4) Avg Eff. CBOD ₅ mg/l	(5) Avg.* Eff. BOD ₅ mg/l	(6) Avg. Capa. Util.	(7) Est. Cost 1976(\$)	(8) Est. ^b Cost (\$)	(9) True ^c Cost (\$)	(10) Perc. of True Cost
91/92	7.68	155.25	7.50	15.66	0.79	424084.60	940274.77	1079378	
90/91	8.36	160.33	6.83	11.75	0.86	442396.86	953918.22		95
89/90	8.37	170.75	7.25	15.41	0.86	447437.28	939443.52		90
88/89	9.07	177.67	6.41	14.67	0.94	467872.57	947624.71	990182	96
87/88	8.43	147.75	5.87	***	0.87	439637.66	858667.31	899182	95
86/87	8.52	131.83	5.92	***	0.88	429018.31	811950.67	832219	97
85/86	8.57	125.33	6.00	***	0.88	424263.97	785551.26	814527	96
84/85	9.32	129.17	6.08 ^d	7.10°	0.96	434198.01	764934.77	765318	100
83/84	11.07	105.33	***	6.58	1.14	439285.10	747299.46	743496	100
82/83	11.30	103.33	***	6.00	1.17	443761.38	719378.80	812264	89
81/82	11.11	158.02	***	6.25	1.15	487253.30	750864.94	784372	96
80/81	8.25	180.46	***	5.92	0.85	457708.07	643651.97	639893	101

*CBOD₅ effluent concentrations are the chosen parameter for this analysis. However, for 83/84, 82/83, 81/82 and 80/81 these figures were not available and BOD₅ data were used instead.
*Estimated costs were corrected for inflation using price indexes (current price index/time t price index) from the "Survey of Current Business: Pollution Abatement and Control by Sector and Type" (U.S. Department of Commerce, 1992). Additionally, the 1991 index figure was forecasted using a simple 5 period moving average.

^oTrue costs for 89/90 were not available, so estimated actual costs were used instead. Estimated actual costs are computed every six months and usually exceed actual costs. For each of the 5 years from 86/87 to 90/91, 50,000 was subtracted from actual costs because of a replacement fund that was listed under O&M expenses but never used for O&M. Ten thousand dollars was also subtracted from every year with the exception of 91/92 to account for a vehicle fund that was never used (Hanthorn, 1992). Additionally, expenditures on the United Chrome cleanup were not included.

^dEffluent BOD₅ concentration data were only available for the months July through November. ^eEffluent CBOD₅ concentration data were only available for the months December through June.

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Approved ______ Approved with Corrections _____

Minutes are not final until approved by the EQC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Two Hundred and Twenty Fifth Meeting December 11, 1992

The Environmental Quality Commission meeting was convened at 8:30 a.m. on Friday, December 11, 1992, in conference room 3A at the Department of Environmental Quality (DEQ) offices at 811 S. W. Sixth Avenue, Portland, Oregon. The following commission members were present:

William Wessinger, Chair Emery Castle, Vice Chair Henry Lorenzen, Commissioner Linda McMahan, Commissioner Carol Whipple, Commissioner

Also present were Michael Huston, Assistant Attorney General, Oregon Department of Justice, Fred Hansen, Director, DEQ, and other DEQ staff.

Note: Staff reports presented at this meeting, which contain the Department's recommendations, are on file in the Office of the Director, DEQ, 811 S. W. Sixth Avenue, Portland, Oregon 97204. Written material submitted at this meeting is made a part of this record and is on file at the above address. These written materials are incorporated into the minutes of the meeting by reference.

Chair Wessinger called the meeting to order.

A. Approval of the minutes. Commissioner Castle moved that the minutes for the regular meeting on October 15-16, 1992, and the special telephone conference meeting on November 10, 1992, be approved as submitted. The motion was seconded by Commissioner Whipple and unanimously approved.

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B. Approval of tax credit applications.

Commissioner Lorenzen asked that Tax Credit Applications TC-3786, 3787 and 3854 be considered separately from the remainder. He stated that he was opposed to granting tax credits for the two landfill applications (TC-3786 and 3878) for the reasons stated at the last meeting on similar applications (no Return on Investment calculation). Commissioner Lorenzen also stated that he would not participate in any discussion or action on application TC-3854 for Pendleton Grain Growers because of a potential conflict of interest.

Commissioner Whipple asked about the application for noise tax credit (TC-3419), whether other noise applications had been approved, and whether the Department checks compliance. Mike Downs, Administrator of the Water Quality Division, responded that the statutes provide eligibility for noise facilities. Brian Fields, Air Quality Division staff, noted that the Department had checked the facility after installation and that the applicant had installed noise monitoring.

Commissioner Lorenzen moved that the tax credits listed below excluding Tax Credit Applications Nos. 3786, 3787, and 3854 be approved. The motion was seconded by Commissioner Castle and unanimously approved.

Application Number	Applicant	Facility Description
TC-3399	Trashco Services, Inc.	Peterbilt 320 truck; Rand Enviro Master Recycling body; Plastic-Pak Plastic Compactor Model LC60-B.
TC-3566	Portland General Electric Company	Four ENDA-1220 continuous emission monitoring systems and display equipment.
TC-3730	Hydraulic and Machine Services, Inc.	Model EC RGF Ultrasorb Water Recycling System; covered wash pad; concrete sump.
TC-3766	GFK Associates	Auto air conditioning recycling machine.
TC-3784	Columbia Plywood Corporation	Carter Day 144 RJ120 Baghouse and modifications to existing support equipment.

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Application Number	Applicant	Facility Description
TC-3803	Jantzen Inc.	Air conditioner refrigerant recycling machine.
TC-3806	Graham Oil Company, Inc.	Installation of three STI-P3 tanks and fiberglass piping, spill containment basins, overfill alarm, line leak detectors, tank monitor and automatic shutoff valves.
TC-3807	Station Mart James Bao & Thuy Luong	Installation of three STI-P3 tanks and fiberglass piping, spill containment basins, tank monitor, line leak detectors, monitoring wells, Stage I vapor recovery and automatic shutoff valves.
TC-3817	Harvey & Price Co.	Air conditioner refrigerant recycling machine.
TC-3821	All Around Automotive	Auto air conditioning recycling machine.
TC-3822	E & E Body Shop	Auto air conditioning recycling machine.
TC-3823	The Heating Specialist, Inc.	Air conditioner refrigerant recycling machine.
TC-3827	Marion Ag Service, Inc.	Auto air conditioning recycling machine.
TC-3828	Knez Building Supply	John Deere Loader 544B, sheetrock processing machine, vibrating conveyor, and support equipment.
TC-3829	Certified Automotive	Auto air conditioning recycling machine.
TC-3830	Denny Green Radiator & Automotive, Inc.	Auto air conditioning recycling machine.
TC-3831	BP Oil Company	Installation of three fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, ball float valves, monitoring wells and Stage I vapor recovery equipment.

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Application Number	Applicant	Facility Description
TC-3833	BP Oil Company	Installation of three fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, ball float valves, monitoring wells and Stage I vapor recovery equipment.
TC-3834	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, line leak detection, float vent valves, tank monitoring system and Stage I vapor recovery equipment.
TC-3835	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, ball float valves, monitoring wells and Stage I vapor recovery equipment.
TC-3837	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, line leak detection, float vent valves and monitoring wells.
TC-3838	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, ball float valves, monitoring wells and Stage I vapor recovery equipment.
TC-3839	Gil's Truck Repair, Inc.	Auto air conditioning recycling machine.
TC-3840	Atlas Refrigeration, Inc.	Three commercial air conditioning recycling machines.
TC-3841	Westermam Heat & Cool	Air conditioner refrigerant recycling machine.

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Application Number	Applicant	Facility Description
TC-3842	Harvey & Price Co.	Air conditioner refrigerant recycling machine.
TC-3845	Blooms Automania	Auto air conditioning recycling machine.
TC-3847	Cascade Farm Machinery Co., Inc.	Auto air conditioning recycling machine.
TC-3848	Professional Drivers & Dispatch	Auto air conditioning recycling machine.
TC-3849	Brakes Plus	Auto air conditioning recycling machine.
TC-3850	Don Rasmussen Co.	Auto air conditioning recycling machine.
TC-3852	Terry Shellman	Auto air conditioning recycling machine.
TC-3853	Western Stations Co.	Installation of epoxy lining in three tanks, sumps and Stage II vapor recovery system.
TC-3854	Pendleton Grain Growers, Inc.	Installation of a tank monitor system, overfill alarm and spill containment basins.
TC-3855	J & R Automotive Services, Inc.	Auto air conditioning recycling machine.
TC-3856	Bewley Mechanical Systems, Inc.	Air conditioner refrigerant recycling machine.
TC-3857	Prewitt's Quality Body & Paint	Auto air conditioning recycling paint machine.
TC-3858	Erickson Automotive	Auto air conditioning recycling machine.
TC-3860	Meier & Frank	Air conditioner refrigerant recycling machine.
TC-3861	Crown Auto Craft	Auto air conditioning recycling machine.
TC-3862	Central Auto Services, Inc.	Auto air conditioning recycling machine.

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Application Number	Applicant	Facility Description
TC-3863	Scott T. Robertson	Yale Model #GLC030CE 3,000 lb. forklift truck.
TC-3865	Portland General Electric	Steel containment basin and 4-inch oil stop valve.
TC-3867	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, line leak detection, float vent valves, monitoring wells and Stage I vapor recovery equipment.
TC-3868	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, line leak detection, float vent valves and Stage I vapor recovery equipment.
TC-3869	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, line leak detection, float vent valves, monitoring wells and Stage I vapor recovery equipment.
TC-3870	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, line leak detection, float vent valves, Stage I vapor recovery equipment and automatic tank gauges.
TC-3871	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, line leak detection, float vent valves, monitoring wells, Stage I vapor recovery equipment and automatic tank gauges.

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Application Number	Applicant	Facility Description
TC-3872	BP Oil Company	Installation of fiberglass underground storage tanks, double wall fiberglass piping, spill containment basins, line leak detection, float vent valves, monitoring wells and Stage I vapor recovery equipment.
TC-3873	Cedar Mill Texaco	Auto air conditioning recycling machine.
TC-3875	G & R Auto Wreckers, Inc.	Auto air conditioning recycling machine.
TC-3876	G & R Auto Wreckers, Inc.	Auto air conditioning recycling machine.
TC-3879	The Master Wrench Inc.	Auto air conditioning recycling machine.
TC-3881	Quality Volvo Service	Auto air conditioning recycling machine.
TC-3883	Far West Fibers, Inc.	Fence and paving; forklift truck; magazine storage area; metal tote bins; mixed waste paper drop box.
TC-3884	Far West Fibers, Inc.	Krause rubber belt conveyor; CIII Promal chain; 20 HP hydrostatic drive.
TC-3886	Virgil Welch Chevron	Auto air conditioning recycling machine.
TC-3887	Quality Repairs, Inc.	Auto air conditioning recycling machine.
TC-3888	Larry Henderson's Chevron	Auto air conditioning recycling machine.
TC-3889	Western Stations Co.	Installation of two corrosion protected storage tanks (1 STI-P3 and 1 composite), double wall fiberglass piping to four tanks, spill containment basins for four tanks, expansion of tank monitoring system with overfill alarm, monitoring wells, sumps, Stage II vapor recovery piping, automatic shutoff valves and an oil/water separator.
TC-3890	American Heating, Inc.	Air conditioner refrigerant recycling machine.

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Application Number	Applicant	Facility Description
TC-3891	Foster Auto Parts, Inc.	Auto air conditioning recycling machine.
TC-3894	U-Pull-It, Ltd.	Auto air conditioning recycling machine.
TC-3895	U Pull It Tigard, Inc.	Auto air conditioning recycling machine.
TC-3896	Western Stations Co.	Installation of a Stage II vapor recovery system and spill containment basins, sumps and vapor leak detection system related to retrofitting the facility for Stage II.
TC-3897	Comfort Control, Inc.	Air conditioner refrigerant recycling machine.
TC-3899	Coastal Refrigeration	Air conditioner refrigerant recycling machine.
TC-3900	Don Giles Gas & Oil	Installation of two fiberglass tanks and piping, spill containment basins, line leak detectors, overfill alarm, monitoring wells, sumps, automatic shutoff valves, Stage I vapor recovery and hook up to an existing tank monitoring system at an adjacent facility.
TC-3901	Cascade Chevron	Auto air conditioning recycling machine.
TC-3905	Sheldon's Texaco & Muffler Shop	Auto air conditioning recycling machine.
TC-3907	Clear Pine Moulding, Inc.	Clark wood crusher, Jeffery hog, two drum magnetic separators, and conveyor belts.

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Application Number	Applicant	Facility Description
TC-3419	Fujitsu Microelectronics, Inc.	Sound walls; cooling tower modifications; scrubber exhaust silencers and system modifications; standby generator silencers and structural materials; boiler silencers and structural modifications.
TC-3786 & 3787	Hillsboro Landfill, Inc.	Landfill liner and leachate collection system.
TC-3846	Medford Corporation	E-Tube electrostatic filter and associated support equipment.

Commissioner Castle moved approval of Tax Credit Application TC-3854. The motion was seconded by Commissioner Whipple and approved with four yes votes and Commissioner Lorenzen abstaining.

Commissioner Castle moved approval of Tax Credit Applications TC-3786 and 3787. The motion was seconded by Commissioner Whipple and approved with four yes votes and Commissioner Lorenzen voting no.

Commissioner Lorenzen asked about the process for reporting to the legislature on the tax credit program. Director Hansen responded that a report had been drafted which reflected the discussion at the last meeting. A letter for the Chair's signature transmitting the report to the Governor had also been prepared. Director Hansen stated that the report would be circulated to the members for review before transmittal to the Governor.

C. Rule Adoption: Proposed Solid Waste Fee for Orphan Sites

Director Hansen introduced this agenda item by providing some background information on the legislation which included three separate funding sources for the Orphan Site Account. The account can be used to pay for cleanup of sites where the responsible party is unknown or unable to pay for cleanup or where the responsible party is a local government. The three funding sources are the petroleum loading fee, the hazardous substance possession fee, and the solid waste disposal fee which this rule proposes to establish at 13 cents per ton to take effect January 1, 1993. Environmental Quality Commission Minutes Page 10 December 11, 1992

Chair Wessinger asked why the fee had not been established earlier. Director Hansen responded that legal questions on the petroleum loading fee delayed implementation because both were to go into effect at the same time. Commissioner McMahan asked how big the potential cleanup problem at solid waste sites was. Jeff Christensen of the Environmental Cleanup Division staff responded that there are nine landfills where a release of hazardous substances has been identified. He also noted that separate rules are being developed for administration and use of the Orphan Site Account.

Commissioner Lorenzen moved that the rule amendment presented in Attachment A of the staff report which establishes the 13 cents per ton solid waste disposal fee for the Orphan Site Account effective January 1, 1993, be adopted. The motion was seconded by Commissioner Whipple and unanimously approved.

D. Rule Adoption: Rule Exempting Lenders, ORS Chapter 709 Trusts Acting as Fiduciaries, and Government Entities from Cleanup Liability

Director Hansen introduced this item noting that the intent was to parallel federal legislation to the extent possible consistent with Oregon law. Brooks Koenig of the Environmental Cleanup Division staff explained the rules in more detail. He specifically noted that the proposed rules only clarify liability and do not create or remove any basis for liability. The responsible party remains liable for all cleanup costs. He also noted that the rules were developed with the assistance of the Lender Liability Advisory Committee.

Commissioner Whipple moved approval of the proposed rules as presented in Attachment A of the staff report. The motion was seconded by Commissioner McMahan and unanimously approved.

E. Rule Adoption: Solid Waste Reduction and Recycling Rules

Pat Vernon and Jan Whitworth of the Hazardous and Solid Waste Division introduced this item and explained that the amendments to these rules were made necessary by new statutory requirements enacted by the 1991 legislature. The amendments were developed with the assistance of the Solid Waste Advisory Committee. Three hearings were held, and ten people testified at these hearings. The rule amendments focus on the following:

• Creation of new and more specific recycling collection program requirements for local governments.

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- Establishment of comprehensive reporting requirements for counties and the private recycling industry.
- Deletion of previous requirements which are now inconsistent with the new requirements.
- Expansion of the requirement for Waste Reduction Programs to include private industry in addition to local governments. This requirement applies to generators of solid waste who wish to dispose of at least 75,000 tons of waste per year in Oregon.

The proposed amendments also re-arrange the existing rules to establish greater clarity.

Department staff proposed an amendment to the staff report to address an issue that had been raised after the hearing regarding recycling collection for multi-family dwellings. Local governments cannot place requirements on landlords, therefore, there is a need for more flexibility to accomplish the desired result. Specifically, staff proposed that subparagraph (d) on page A-12 of the rules be amended to read as follows:

(Note: This section is all new language; amendments show changes proposed)

- "(d) Establish and implement a recycling collection program through local ordinance, contract or <u>any</u> other means enforceable by the appropriate city or county [which requires the collector and the landlord] for each multi-family dwelling complex having five or more units[to provide the collection service and the appropriate convenient location and equipment for collection of source separated recyclables]. The collection program shall meet the following requirements:
 - (A)"

Commissioner Whipple asked why there were so few comments on the reporting requirements during the hearing process. Ms. Whitworth responded that local governments have had to report since 1983. The only new requirement is reporting by the private collectors.

David Rand, representing the Oregon Apartment Association, expressed support for the rules as proposed by the staff.

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Meganne Steele, representing the City of Portland Bureau of Environmental Services, noted that she enjoyed working with the Department on the proposed rules. She said the City supported the staff report and recommended changes. She expressed concern regarding the provisions of Section (3) of OAR 340-90-190 as amended on page A-38 of the rules. This section provides that each unit of a multi-family dwelling up to and including four units is considered one residential generator. The rules require collection of one unit of yard debris each month for each unit for no additional charge. This requirement applied to multi-family units is inequitable because quantity is not related to the number of units. In addition, this requirement has an impact on rates that cannot be accommodated until the next cycle of the rate setting process. She, therefore, suggested that this change should be eliminated or at least delayed until after July 1.

David Rand disagreed with Ms. Steele. He stated that each unit pays full cost for solid waste and recycling and is, consequently, paying for the yard debris service. Ms. Whitworth stated the Department was trying to clarify the intent of the rule and change it. The Department believed that four or less units were treated individually like single-family units. Ms. Steele stated that yard debris is not handled in the same way as other recyclables in the rate setting process.

Jeanne Roy, representing Recycling Advocates, noted her long involvement in the yard debris issue and expressed concern over the proposed amendments relating to yard debris. She was concerned that the proposed rules would result in backsliding on the issue and loss of progress made to date. She urged the Commission to either retain the old rules until the matter is resolved or amend the rules on page A-18 to continue the 80 percent recovery rate for yard debris from the old rules.

Ms. Vernon responded that the Department was proposing to simplify and clarify the rules. Specifically, the Metro plan has been approved as an alternative method for yard debris under the existing rules. Under the new rules, this plan cannot be changed without Department approval. Director Hansen commented that what is involved is a shift in philosophy, from performance standards to performance requirements. The issue is a difference in opinion on whether the approach proposed in the rules will accomplish the desired result. The Department expects the performance requirements to achieve the equivalent of the old performance standards which were difficult to measure. Michael Huston noted that the rules do provide for authority to enforce the approved alternative method under section 080.

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Chair Wessinger directed attention back to the apartment issue. After some discussion, the Commission deferred action on this item until later in the meeting to give staff time to develop proposed alternative wording to clarify the intent of achieving equivalency of single-family units.

F. Rule Adoption: Proposed Revisions to Definitions and to Permit Fee Schedule for Wastewater Disposal Permits

Tom Lucas of the Water Quality Division explained that these proposed rule amendments modify a definition to clarify permit requirements for on-site sewage disposal systems with a capacity of less than 5,000 gallons per day and add new definitions for septage and septage alkaline stabilization facilities. The rules also establish new reduced fees for small on-site disposal systems with a capacity of less than 1,200 gallons per day that are covered by Water Pollution Control Facility (WPCF) permits.

Commissioner Castle moved adoption of the rule amendments as presented in Attachment A of the staff report. The motion was seconded by Commissioner Lorenzen and unanimously approved.

The Commission then decided to move Item J ahead on the agenda.

J. Request for Variance from New Source Review Rule by Anodizing, Inc.

Steve Greenwood, Administrator of the Air Quality Division, summarized the issues involved in this variance request. New Source Review rules for new major sources in the Portland ozone nonattainment area require use of best possible air pollution controls. Emissions remaining after control equipment application must be offset by reductions from other sources. Anodizing, Inc. obtained a new permit in 1988 but did not go through New Source Review because they opted to limit the operations of the new facility so that emissions would not reach the trigger level. They are now requesting a variance from New Source Review. The variance would allow the company to increase production and emit up to ten tons above the trigger level for five years, without meeting any of the New Source Review requirements. Anodizing, Inc. proposes to provide an offset for the increased uncontrolled emissions. The Department recommended denial of the variance request because the facility does not qualify for a variance under federal rules. Granting the variance under state rules would leave the company in violation of federal rules.

Chair Wessinger asked what would happen when the Portland area is returned to attainment. Mr. Greenwood responded that new source review is not required if the

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area is in attainment. However, the area must have an attainment plan to assure that it stays in attainment, and new source review could be a provision of the attainment plan, and, therefore, an attainment requirement.

Michael W. Davis, Anodizing, Inc./Coatings Division Manager, explained to the Commission that they had acquired Pacific Coatings and closed the facility. The result was a large reduction in emissions. They wanted to use ten tons of the reduction for the Anodizing expansion. He argued that the closure of Pacific Coatings more than offset the Anodizing increase, and the variance should be viewed as an offset rather than a precedent.

Lew Rink, President of Anodizing, Inc., stated that the earlier decision to avoid new source review was an economic decision that avoided an unfeasible expenditure. He stated that their variance request had been before the Department for one and a half years. He stated that the closure of Pacific Coatings resulted in a net 56-ton benefit to the airshed. He stated that the increase from 39.9 tons to 49 tons is significant to the company but small to the airshed. He also stressed that the variance was requested for only five years.

Chair Wessinger noted the difference of opinion on the authority to grant the variance and asked why the company thinks the Commission has authority to grant the variance. Mr. Rink said that EPA advised them that Oregon had the authority to grant the variance.

Director Hansen commented that the closure of Pacific Coatings was a significant benefit to the airshed. He stated that the state could grant the variance but the company would still be subject to enforcement by EPA. Steve Greenwood noted that new source review is a burdensome requirement, that the lowest achievable emission rates (LAER) are required without regard to cost, and offsets cannot replace the new source review requirement.

In response to a question from Chair Wessinger, Mr. Huston stated that the variance would not be legally defensible. He further noted that we just lost on a similar new source review issue in federal court.

Mr. Davis asked if the matter could be referred to EPA for a decision. Mr. Rink suggested that the potential basis for the earlier EPA advice to them was that Oregon set the trigger limit at 40 tons rather than the 100 tons specified in the federal requirements. Mr. Huston stated that the Court spoke to that issue in the recent decision and said that Oregon's 40-ton limit is the applicable limit.

Mr. Rink then asked the Commission to table the matter to allow them to further explore the matter with EPA. Commissioner Castle stated that the Commission appear to have no alternative but denial.

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Mr. Rink then stated that the company was withdrawing its variance application to allow them to further explore the legal issues. The Commission concurred in allowing the withdrawal of the application.

The Commission then returned to the order of the agenda as published.

G. Rule Adoption: Proposed Amendments to the State Revolving Fund (SRF) Rules

Director Hansen introduced this item and Martin Loring of the Water Quality Division staff provided additional explanation. The proposed rule amendments are intended to make more money available in the future for revolving fund loans and to assure that long-term funding is available for administrative costs.

Commissioner Whipple moved that the rule amendments as presented in Attachment A of the Staff report be adopted. The motion was seconded by Commissioner Castle and unanimously approved.

H. Proposal to Amend the EQC Bond Resolution Adopted in September 1991 to Include Approval for Use of Bond Proceeds for State Revolving Fund Match

Peter Dalke and Barrett McDougall, representing the Management Services Division, explained to the Commission that proceeds from the previous Pollution Control Bond sale had not been used as originally intended. So that Oregon's matching contribution can be used to capitalize the State Revolving Fund, the Commission must amend the September 18, 1991, bond issuance resolution authorizing transfer from the Pollution Control Bond Fund to the State Revolving Fund. This action will be more cost effective than scheduling another bond sale before spring 1993. The Attorney General and Bond Counsel had concurred in the proposed action.

Commissioner Lorenzen moved that the Department recommendation be approved. The motion was seconded by Commissioner Castle and unanimously approved. Environmental Quality Commission Minutes Page 16 December 11, 1992

I. Request of the City of McMinnville for Approval of (1) an Alternative Design Criterion to that Specified by the Dilution Rule, (2) a Mass Load Increase for the Winter Period for BOD-5 and TSS, and (3) an Extension of the Deadline for Reducing Discharges to Meet the TMDL for the Yamhill River

Director Fred Hansen introduced the item to the Commission followed by a brief summary of the item by Dick Nichols of the Water Quality Division.

Don Schut, Public Works Director for the City of McMinnville, stated that the McMinnville City Council supported construction of the new sewerage facility to meet water quality standards but also noted that the cost of the new facility was quite expensive. He also indicated the city supported the Department's staff report recommendation.

Commissioner Castle moved that the Commission approve the three requests made by the City of McMinnville together with the supporting findings as presented in the Department staff report for Agenda Item I. The motion was seconded by Commissioner Lorenzen and approved unanimously.

Following the adoption of the motion, Fred Hansen stated that the city should be commended for their efforts in upgrading their sewage treatment facilities.

K. Recommendations of the State's Task Force on Motor Vehicle Emission Reductions in the Portland Area

John Kowalczyk of the Air Quality Division staff summarized information on the recommendations of the Task Force on Motor Vehicle Emission Reductions in the Portland Area. House Bill (HB) 2175 required the Governor to appoint a task force to study alternatives to reduce motor vehicle emissions and to make recommendations to DEQ, METRO, and the legislature. Under the Clean Air Act Amendments of 1990, the Portland area has been classified as a marginal non-attainment area for ozone and a moderate non-attainment area for carbon monoxide. The EPA compliance dates are late 1993 for ozone and late 1995 for carbon monoxide. Mr. Kowalczyk noted that vehicle miles traveled in the Portland area are increasing at

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four times the rate of population growth. Attachment 7 of the staff report presents the recommendations of the Task Force. These include lawn and garden equipment emission standards, improvements in the Portland vehicle inspection program, credit for the Department of Land Conservation and Development (DLCD) vehicle travel reduction rule, and an employer trip reduction program. The task force also recommended a phased-in vehicle emission fee based on actual emissions and miles driven, however, after the Task Force completed its work, the Oregon Supreme Court ruled that the vehicle emission fee enacted by HB 2175 was constitutionally invalid.

In response to a question from Chair Wessinger, Director Hansen noted that the congestion pricing concept is still considered experimental. The task force has recommended pursuit of a demonstration program for this option. Commissioner Whipple asked about the relationship to the Vancouver area. Mr. Kowalczyk responded that Washington is pursuing control options as well. Commissioner Lorenzen commented that the fee should be pursued, even if fees are currently limited by the Constitution. Commissioner Castle indicated he was supportive of the recommendations in the report and noted that he did not remember anything like it and was concerned about the potential precedent. Director Hansen responded that the recommendations are different but the state will face very difficult problems if something is not done.

Commissioner Lorenzen moved approval of the report. The motion was seconded by Commissioner Castle and unanimously approved.

The Commission then returned to Agenda Item E which had been deferred earlier in the meeting.

E. Rule Adoption: Solid Waste Reduction and Recycling Rules (continued)

Department staff presented proposed modifications to the staff report in response to testimony presented earlier in the meeting. The specific amendments proposed were as follows:

Page A-38, Rule OAR 340-90-190

Section (3): delete the proposed addition which reads as follows:

[Each unit is considered one residential generator.]

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Section (4): At the end of this section, add:

Where multi-family complexes are treated as single customers, the local government providing the yard debris service shall assure that yard debris service is provided at a level equivalent to service provided single family dwellings. Equivalent service shall be based on the amount of yard debris generated.

Local government shall make this determination and any related adjustment in service, no later than their next rate review process.

Commissioner Lorenzen moved that the proposed rules be adopted as presented in Attachment A of the staff report and with amendments to 340-90-40 and 340-90-190 as discussed and proposed by staff. The motion was seconded by Commissioner McMahan and unanimously approved.

The Commission then recessed the meeting for lunch with intent to reconvene at 12:45 p.m.

Upon reconvening the Commission elected to start with Agenda Item M.

M. Report to the Legislature on Implementation of the 1989 Toxics Use Reduction and Hazardous Waste Reduction Act

Stephanie Hallock, Administrator of the Hazardous and Solid Waste Division, introduced this report. The Toxics Use Reduction report to the legislature summarizes the activities of the program including conclusions reached as a result of the first three years of implementation. The report concludes that while the quasi-voluntary program is working for the larger generators, the program has not been as successful for the smaller facilities. The report also makes recommendations on ways to improve the program including quantitative measurement of chemical use and hazardous waste generation in Oregon.

Commissioner Whipple moved adoption of the report. The motion was seconded by Commissioner Castle and unanimously approved.

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N. Report to the Legislature on the Conditionally Exempt Small Quantity Hazardous Waste Generator Pilot Project

Stephanie Hallock introduced this report. The 1989 legislature required the Department to study management and funding options for hazardous waste produced by Conditionally Exempt Generators (CEG). This report describes who CEGs are and summarizes the 1991-92 hazardous waste collection events held throughout the state. Other CEG activities, including technical assistance, CEG handbook production, generator workshops and waste management survey, are also discussed in the report.

Report recommendations included partial funding of a Metro pilot project, financial assistance to local governments for combined household/CEG collection events, discount subsidies for waste disposal at waste management companies, and continued work with trade associations and industry groups.

Commissioner Lorenzen commented on the need for this type of program and applauded the program.

Commissioner Castle moved approval of the report. The motion was seconded by Commissioner Lorenzen and unanimously approved.

L. Report to the Legislature on Exemptions for FDA Regulated Rigid Plastic Containers

Director Hansen introduced this item by noting that Senate Bill (SB) 66 established recycling-related criteria for rigid plastic containers sold in Oregon. He said the bill required the Department to report to the legislature about granting exemptions. The exemptions would affect generators of rigid plastic containers who cannot meet the recycled content criteria but still comply with Federal Drug Administration (FDA) regulations. He said he expected the issue to be extensively debated in the next legislative session.

Stephanie Hallock noted that the Department received lots of testimony on the matter, and the issue is not a simple one. The Department evaluated information assembled and testimony received and has attempted to make a recommendation that is implementable and in keeping with SB 66. Director Hansen noted that the Department report and recommendation goes beyond the narrow directive of the legislation and proposed statutory revision to accomplish the purpose of law.

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The Department recommended that the law be changed to a 25 percent minimum recycled content law with credit given for reusable containers. Any container manufacturer or product packager whose rigid plastic containers do not have a minimum of 25 percent recycled content or are not reusable by January 1, 1995, must obtain an annual license until those containers reach the minimum 25 percent recycled content or are reusable. Annual licensing fees collected under this proposed program would be used for improving plastics recycling and recycled plastics markets in Oregon.

Bob Guttridge, representing the Association of Oregon Recyclers, opposed the recommendations of the Department and expressed support for an even stronger law.

Lauri Aunan, representing Oregon State Public Interest Research Group, stated that this is an issue of public concern, and the report should recommend no exemptions or delay and no weakening of the law. She also indicated that the license fees should be high. She expressed concern that DEQ's recommendation would reduce the options for compliance from four to two.

Jerry Powell stated that recovery should be enhanced, and no exemptions were needed.

Susan Brenner, representing Recycling Advocates, noted the need to reverse the trend to produce waste and expressed support for the spirit of SB 66. She stated that manufactures have a responsibility to comply with the 1991 legislation.

Jeanne Roy, representing Recycling Advocates, suggested that the Department needs to send the message that the requirements of the law are reasonable and can be met without exceptions. She noted that manufactures can always switch to alternative containers.

Lynda Gardner, an attorney with Gardner, Cosgrove & Gardner, presented testimony on behalf of two clients as follows:

- 1. Pharmaceutical Manufactures Association. This association supports the recommendation for clarification of the prescription drug exemption.
- 2. Abbott Laboratories. This company supports the recommendation in the report for medical devices, infant formula, and medical foods.

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Dan Colegrove, representing the Grocery Manufactures of America, noted that he represented people who use plastic containers and not the plastics industry. He expressed regret that the requirements of the law cannot be met. He indicated that he opposed the recommendations made by DEQ for a content-only option by 1995. He stated there was strong indication that this requirement could not be met. He indicated that California was the only other state with a requirement, and the California bill was similar to Oregon.

Catherine Beckley, representing the Cosmetic, Toiletry and Fragrance Association, read a prepared statement which expressed disappointment in changes to the earlier draft of the report. Her statement is made part of the record of the meeting.

The Commission then discussed the issues with staff and with persons testifying. Commissioner Whipple indicated that companies need to tell suppliers what they need rather than simply say it cannot be done. Ms. Hallock noted that recycled plastic is more expensive than virgin plastic. Also, only a couple of plastics are recyclable, and these are carrying the others, making the issue more difficult.

Chair Wessinger suggested that anything done differently that might work is a step in the right direction. Commissioner Whipple stated that she did not support an exemption, did not want to give anything away and was inclined to hold to the existing standard. Commissioner McMahan expressed concern about any changes that would have a result of undercutting California. Commissioner Lorenzen indicated that we need to take a position which results in reduction of the waste stream and conservation of resources. Commissioner Lorenzen also commented that the staff had done a good job in trying to achieve a very difficult balance. Commissioner Castle asked if the license fee could be strengthened. Commissioner McMahan expressed concern with the recommendation for removing options for those that can meet the 25 percent recycle rate. Director Hansen suggested that an option would be to maintain the recycling rate at 25 percent but limit it to resin types 3 through 7.

After further discussion, Commissioner Lorenzen moved to: 1) support the report's recommendation for no broad exemptions for rigid plastic containers holding FDA-regulated products; 2) support the recommendation for a licensing option; and 3) to adopt the report with modifications to the recommendations. Those modifications would include that all options and exemptions in the current law be retained and that the aggregate recycling rate option be changed so that it is applicable only to resins resin types 3 through 7 (i.e., resin types 1 and 2 are not to be counted in the aggregate recycling rate). The motion was seconded by Commissioner Castle and unanimously approved.

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O. Report to the Legislature on the Status of Recycling in Oregon (implementation of 1983 and 1991 recycling legislation)

Ms. Hallock introduced this item noting that this was a routine report to the legislature and that hard data should be available for the report next year.

Commissioner Whipple moved approval of the report. The motion was seconded by Commissioner McMahan and unanimously approved.

P. Report to the Legislature on Long Term Funding of the Household Hazardous Waste Program

Ms. Hallock introduced this item noting that a work group from local government, the retail industry, solid waste management and environmental organizations recommended that the state's role in household hazardous waste be limited to the provision of technical assistance to local governments and a continued statewide education program. They recommended a phase out of state-operated collections programs over the next four to six years while shifting assistance to local program development.

Commissioner Whipple moved approval of the report. The motion was seconded by Commissioner Lorenzen and unanimously approved.

Q. Report to the Legislature on Implementation of Household Battery Legislation

Ms. Hallock introduced Bruce Lumper who assisted the Department in drafting and summarizing the report. Chair Wessinger asked whether household batteries could still be disposed in the garbage. Mr. Lumper indicated that batteries could be deposited in the garbage but that the batteries would eventually contain less of the potentially toxic heavy metal mercury.

Commissioner Lorenzen moved approval of the report. The motion was seconded by Commissioner McMahan and unanimously approved.

R. Report on Proposed Legislation for 1993 Legislative Session (Oral)

Olivia Clark of the Director's Office provided the Commission with a written report and table summarizing the bills being introduced by the Department. Environmental Quality Commission Minutes Page 23 December 11, 1992

S. Status Report on Budget (Oral)

Beth Woodrow, Budget Manager for the Department, provided summary information on the Department's budget request and briefly reviewed the materials.

T. Commission Member Reports (Oral)

Commissioner Whipple reported that the Governor's Watershed Enhancement Board (GWEB) is receiving a great deal of attention. GWEB has a history of successful cooperative efforts, and the executive branch continues to support the concept of on-the-ground demonstrations.

U. Director's Report (Oral)

- 1. Director Hansen handed out two letters to the Commission for their review and information. One was from John Williams regarding air toxics, and one was from Larry Tuttle and Valerie Kitchen of The Wilderness Society regarding the Department's draft interim hazardous air pollutant rule.
- 2. One rulemaking hearing had been authorized since the last meeting. This hearing will consider amendments to the solid waste rules to incorporate federal criteria for municipal solid waste landfills and other changes to protect public health and the environment.
- 3. DMV Demonstration Project The demonstration project to sell vehicle registration tags at the DEQ Inspection/Maintenance (I/M) station in Medford has been immediately successful. The project has been enthusiastically received by the public and by the news media, including favorable editorials in the <u>Medford Mail Tribune</u> and <u>The Oregonian</u>. The Division of Motor Vehicles (DMV) and DEQ launched the demonstration project to improve customer service by offering to process vehicle registrations at the inspection station along with the vehicle testing. The program will be evaluated to see if it should be implemented in the Portland stations as well.
- 4. **Oxygenated Fuel** Carbon monoxide levels were noticeably lower in the Portland area during the month of November, the first month of the federally mandated oxygenated fuel program. The average carbon monoxide level for November 1992 was 36.4 on the Air Pollution Index, compared to the November 1991 average of 49.1.

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- 5. **SIP Revisions Submitted** The Department has submitted six State Implementation Plan (SIP) revisions to EPA to meet Clean Air Act requirements. The revisions covered emission inventory, small business assistance program, oxygenated fuels and new source review. Oregon remains one of only a handful of states that have met all Clean Air Act requirements on time.
- 6. Information Systems The Department reported on our information systems development efforts to the Legislative Committee on Data Processing on December 2. We explained our leadership efforts in state government to develop information systems using state-of-the-art integrated computer Assisted software engineering tools and an open systems approach. The open systems approach is now being fostered throughout state government. This effort will allow us to move toward a better agency wide information management system. We expect to budget 2.5 percent of our operating budget for systems development (estimated at \$2 to 3 million).
- 7. **ODOT** Facilities On December 9, we met with ODOT upper management and engineers to launch a program to provide technical assistance for high priority facilities and to develop a plan for statewide cross-media compliance at all facilities. We will be setting up a standing group to address potential problems and to look for pollution prevention opportunities.
- 8. **ODOT Meeting** The Oregon Transportation Commission will be sending an invitation to the Commission to attend a meeting with its members and the Land Conservation and Development Commission. The discussion would focus on land use and transportation issues as they relate to air quality.
- 9. **Multi-Media Inspections** DEQ has taken the lead from EPA for multi-media inspections in Oregon. The first inspection was conducted at Industrial Oil in Klamath Falls on December 9. We have had concerns about the facility based on citizen complaints and our observations of apparent hazardous waste on the site, evidence of past oil spills and the close proximity of the facility to the Klamath River. The Department sent a team of regional staff, EPA specialists and the Oregon State Police who procured and served an administrative search warrant.

There was no further business, and the meeting was adjourned at about 3:45 p.m.

Environmental Quality Commission

□ Rule Adoption Item

☑ Action Item

□ Information Item

Title:

Approval of Tax Credit Applications

Summary:

Attachment A of the staff report presents the Department's evaluation and recommendation for certification of 13 tax credit applications with a total facility cost of \$4,089,604 as follows:

- 2 Air Quality facilities with a total facility cost of \$316,722.
- 4 Air conditioner coolant recycling machines with a total facility cost of \$11,445.
- 2 Field Burning related applications recommended by the Department of Agriculture with a total facility cost of \$181,003.
- 1 Solid Waste Recycling facility with a total facility cost of \$156,887
- 1 Reclaimed Plastic facility with a total facility cost of \$6,660.
- 2 Water Quality facilities with a total facility cost of \$39,685.
- 1 Solid Waste Landfill related facility with a total facility cost of \$3,377,202.

One of the applications has a facility cost exceeding \$250,000 (Solid Waste Landfill) and has been reviewed by an independent contractor selected by the Department. The contractor's review statement is provided with the application review report.

Department Recommendation:

Approve issuance of tax credit certificates for 13 applications as presented in Attachment A of the staff report.

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_ totan ter	Michael Lorms	Jul Herm	_
Report Author	Division Administrator	Director	

December 29, 1992

ENVIRONMENTAL OUALITY COMMISSION REQUEST FOR EQC ACTION Meeting Date: <u>January 29, 1993</u> Agenda Item: <u>B</u> Division: <u>MSD</u> Section: <u>Administration</u> SUBJECT: Approval of Tax Credit Applications. ACTION REQUESTED: Work Session Discussion General Program Background Potential Strategy, Policy, or Rules Agenda Item ___ for Current Meeting Other: (specify) Authorize Rulemaking Hearing Adopt Rules Attachment Proposed Rules Attachment Rulemaking Statements Attachment Fiscal and Economic Impact Statement Attachment Public Notice Issue a Contested Case Order Approve a Stipulated Order Enter an Order Attachment Proposed Order Approve Department Recommendation _X Attachment Variance Request Attachment ____ Exception to Rule Attachment Informational Report Attachment A Other: (specify)

> 811 SW Sixth Avenue Portland, OR 97204-1390 (503) 229-5696

Tax Credit Application Review Reports:

TC-2133 Cascade Forest Products

TC-3417 Fujitsu Microelectronics, Inc.

TC-3878 G & R Auto Wreckers, Inc.

TC-3882 Polk County Farmers' Cooperative

TC-3885 Lane International

TC-3904 Veldon D. Kropf

TC-3914 United Disposal Service, Inc.

TC-3915 William J. Stellmacher

TC-3917 C & E Curtis Enterprises Inc.

TC-3920 Aaltonen & James, Inc.

TC-3921 Action Auto & Radiator

TC-3925 R & R Automotive, Inc. Clark 57-20 baghouse and associated support equipment.

Packed bed aqueous scrubbers and activated carbon off-gas adsorbers.

RGF Ultrasorb Model SD-II closed loop oil/water separation and recycle system.

Concrete wash pad with collection trough, package wastewater treatment system, and building to house package system.

Plastic granulator for reprocessing reclaimed plastic.

198' by 124' by 22' pole construction, metal clad, grass seed straw storage shed.

Collection depot including loading ramp, collection containers, oil collection facility, asphalt slab, storage and maintenance building, gate/house office, informational signs, and security camera system.

Freeman 370T Baler and John Deere 2955 Tractor.

Auto air conditioning recycling machine.

Tax Credit Application Review Reports With Facility Costs Over \$250,000:

TC-3443 Finley Buttes Landfill Landfill liners and leachate Company Collection system for two landfill cells, leachate evaporation pond, and five monitoring wells.

AUTHORITY/NEED FOR ACTION:

<u>X</u> Required by Statute: <u>ORS 468.150-468.190</u>	Attachment
Enactment Date: Statutory Authority: X Pursuant to Rule:OAR 340 Division 16	Attachment Attachment
Pursuant to Federal Law/Rule: Other: Time Constraints:	Attachment Attachment

DEVELOPMENTAL BACKGROUND:

Advisory Committee Report/Recommendation	Attachment
Hearing Officer's Report/Recommendations	Attachment
Response to Testimony/Comments	Attachment
Prior EQC Agenda Items: (list)	
	Attachment
Other Related Reports/Rules/Statutes:	
······································	Attachment
Supplemental Background Information	Attachment

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

None.

PROGRAM CONSIDERATIONS:

None.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

None.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Environmental Quality Commission approve certification for the above identified tax credit applications.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Yes.

Note - Proposed January 29, 1993 Pollution Tax Credit Totals:

<u>Certificates</u>	<u>Certified Costs</u> *	<pre># of Certificates</pre>
Air Quality	\$ 316,722	2
CFC	11,445	4
Field Burning	181,003	2
Hazardous Waste	0	0
Noise	0	` 0
Plastics	6,660	1
Solid Waste - Recycling	156,887	1
Water Quality	39,685	2
Underground Storage	Tanks 0	0
Solid Waste - Landfi	lls <u>3,377,202</u>	<u>1</u>
TOTAL	\$ 4,089,604	13

1992 Calendar Year Totals through December 31, 1992

ertified Costs*	<u> </u>
\$ 1,877,836	14
309,899	110
1,103,655	17
10,119,299	1
2,169,137	2
120,025	7
621,601	8
3,388,428	15
nks 2,910,376	45
s <u>10,211,209</u>	<u> </u>
\$32,831,465	224
	\$ 1,877,836 309,899 1,103,655 10,119,299 2,169,137 120,025 621,601 3,388,428 nks 2,910,376 s 10,211,209

* These amounts represent the total facility costs. To calculate the actual dollars that can be applied as credit, the total facility cost is multiplied by the determined percent allocable of which the net credit is 50 percent of that amount.

INTENDED FOLLOWUP ACTIONS:

Notify applicants of Environmental Quality Commission actions.

Approved:

Section:

Division:

Director:

Leom. n 412

Report Prepared By: John Fink Phone: 229-6149 Date Prepared: December 29, 1992

JF:jf TCJAN93.ALT

State of Oregon Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Jeld-Wen, Inc. Cascade Forest Products PO Box 1329 Klamath Falls, OR 97601

The applicant owns and operates a mill where dimension lumber is graded, ripped, cut to length and finger jointed into stock for milling windows, doors and frame components. The mill is located in Bend, Oregon.

Application was made for tax credit for an air pollution control facility.

2. <u>Description of Facility</u>

The claimed facility controls particulate emissions of the applicant's wood waste handling system. The facility consists of a Clark 57-20 baghouse and associated support equipment.

Claimed Facility Cost:

\$157,271.57

Costs were attributed to the following categories:

Baghouse & Ductwork:	\$119,151.66
Support equipment	
materials & labor:	\$22,636.12
Jeld-Wen labor,	
overhead & expenses:	\$15,483.79

The applicant indicated on the application that equipment removed from service due to installation of the facility claimed in this application had a salvage value.

Salvage value of equipment removed from service: \$8,000.00

Eligible facility costs:

\$149,271.57

Accountant's Certification was provided.

The applicant indicated the useful life of the facility is twenty years.

Application No. TC-2133 Page #2

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16. The statutes and administrative rules governing this facility are those which were in effect June of 1986.

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was approved before application for final certification was made.
- b. On December 2, 1988 the Director withheld TC-2133 until noise controls were installed at the Cascade Forest Products plant site. On August 10, the applicant completed noise abatement work which improved the sound levels at noise sensitive properties. The applicant applied for and received an exception to OAR 340-35-035 for the remaining noise violations. As result this facility meets the conditions of ORS 468.180.
- c. Construction of the facility was substantially completed on September 18, 1986 and placed into operation on September 15, 1986. The application for final certification was submitted to the Department on April 20, 1987, within two years of substantial completion of the facility. The application was found to be complete on October 2, 1992.

4. <u>Evaluation of Application</u>

a. Rationale For Eligibility

The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to control air pollution. This is in accordance with OAR Chapter 340-21-030. The air contaminant Discharge Permit for this source, 09-0014, item 2 requires the permittee to control particulate emissions. The emission reduction is accomplished by the elimination of air contaminants as defined in ORS 468A.005.

The baghouse was installed to control the particulate emissions of the wood waste handling system. The particulate is generated by the ripping operations, the chop saws, and the finger jointing process. A 200 horse power fan located at the exhaust of the baghouse provides the draw to move material through the system. Particulate generated

Application No. TC-2133 Page #3

by the milling operations is drawn into ducting located above the process equipment and into a main duct trunk which feeds into the baghouse. The material is filtered and collects at the bottom of the baghouse. A material handling fan draws the particulate from the baghouse, through ducting, and feeds it to a cyclone on top of the truck bin. The cyclone vents its exhaust to the baghouse and drops particulate in the truck bin.

b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

 The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

A portion of the waste product is converted into a usable commodity consisting of waste heat.

2) The estimated annual percent return on the investment in the facility.

The average annual cash flow is \$4,644.00 which results from the value of the waste heat less operating cost. Dividing the average annual cash flow into the cost of the facility gives a return on investment factor of 34. Using Table 1 of OAR 340-16-030 for a useful life of 20 years gives an annual return on investment of 0%. As a result, the percent allocable is 100%.

3) The alternative methods, equipment and costs for achieving the same pollution control objective.

The applicant indicated other filter systems were considered. Costs of all systems were comparable. The Clarke 57-20 was chosen due to references and past performance experience.

4) Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

Application No. TC-2133 Page #4

The applicant indicated an annual cash flow of \$4,644.00 which results from a gross annual income of \$21,244.00 less operating costs of \$16,600. The annual income is realized through the reuse of waste heat which lowers heating costs. The annual cash flow from this facility has been included in the return on investment calculations.

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air pollution.

> The applicant indicated on the application that there was a salvage value of \$8,000.00 for equipment removed from service due to the installation of the claimed facility. The facility cost has been adjusted for this salvage value. There are no other factors to consider in establishing the actual costs of the facility properly allocable to the control of air pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

5. <u>Summation</u>

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to control air pollution.
- c. The facility complies with DEQ statutes and rules and permit conditions.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

Application No. TC-2133 Page #5

6. <u>Director's Recommendation</u>

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$149,271.57 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2133.

BKF:a LEGAL\AH70419

State of Oregon Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. <u>Applicant</u>

Fujitsu Microelectronics, Inc. Gresham Manufacturing 3545 North First Street San Jose, CA 95134

The applicant owns and operates a semiconductor manufacturing plant in Gresham, Oregon.

Application was made for tax credit for an air pollution control facility.

2. <u>Description of Facility</u>

The claimed facility controls the emissions of gaseous pollutants from semiconductor manufacturing processes. The facility consists of packed bed aqueous scrubbers and activated carbon off-gas adsorbers.

\$167,450.00

Claimed Facility Cost: Costs were attributed to	\$1
the following categories: Scrubbers and adsorbers:	\$109,208.00
Mechanical & electrical installation:	\$40,301.00
ntractor labor expenses:	\$17,941.00

Accountant's Certification was provided.

The applicant indicated the useful life of the facility is 20 years.

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16.

The facility met all statutory deadlines in that:

a. The request for preliminary certification was approved before application for final certification was made.

Application No. TC-3417 Page #2

- b. On April 26, 1991 the Environmental Quality Commission approved a one-year extension for the applicant to file an application for pollution control facility tax credit certification.
- c. Construction, of the facility was substantially completed on April 1, 1989. The first phase of the facility was placed into operation on September 1, 1988. The application for final certification was submitted to the Department on March 1, 1992, within three years of substantial completion of the facility. The application was found to be complete on October 26, 1992.
- 4. <u>Evaluation of Application</u>
 - a. Rationale For Eligibility

The sole purpose of the facility is to control air pollution. The air contaminants controlled are toxic pollutants. The Department is currently developing rules under Title III, of the Clean Air Act Amendments of 1990, for the control of air In the interim, the Department is toxics. implementing guidelines that require new sources and major modifications to existing sources to quantify their emissions of air toxics. Proposed emission levels are evaluated relative to established Significant Emission Rates (SER) for each air toxic. New sources which generate air toxics above the SER are required to model concentration levels for site specific conditions to determine if emissions meet or exceed acceptable risk levels. The emission rates for each air toxic as controlled by the scrubbers, is below the SER. The control is accomplished by the elimination of air contaminants as defined in ORS 468.005.

The facility claimed in this application consists of seven packed bed water based scrubbers and twelve activated carbon adsorbers. Emissions of air toxics are directed to scrubbers via ducts. Each scrubber is dedicated to controlling the emissions from specific plant processes. Each scrubber has a recirculation pump which circulates water in the scrubber. A PH probe is mounted in the scrubber sump which measures variances in PH. As contaminants are adsorbed, the PH variance will reach a point initiating purging of the scrubbers. The effluent purged from the scrubbers is treated by

Application No. TC-3417 Page #3

the plant's waste water treatment system, prior to discharge to city sewer.

The scrubbers in this plant control emissions of ammonia, acids, and dopants. The ammonia is used in the manufacture of circuit boards. The acids are used during the etching process and for final product clean up. The gasses arsine, phosphine, and boron triflouride are used as dopants in the ion implantation process. Adsorbing filters serve as an additional filter for-off gasses from processes operated at a near vacuum prior to the gas stream passing through the scrubbers.

b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

The facility does not recover or convert waste products into a salable or usable commodity.

2) The estimated annual percent return on the investment in the facility.

The applicant indicates in the application there is no income or savings from the facility, so there is no return on the investment.

 The alternative methods, equipment and costs for achieving the same pollution control objective.

The applicant did not identify alternative methods for achieving the same pollution control.

4) Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

There are no savings or increase in costs as a result of the facility installation.

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the control of air pollution.

There are no other factors to consider in establishing the actual cost of the facility properly allocable to the control of pollution. The sole purpose of the facility is to control a substantial quantity of air pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

5. <u>Summation</u>

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the sole purpose of the facility is to control air pollution.
- c. The facility complies with DEQ statutes, rules, and permit conditions.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. <u>Director's Recommendation</u>

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$167,450 with 100% allocated to pollution control be issued for the facility claimed in Tax Credit Application No. TC-3417.

BKF:a LEGAL\AH70418

Application No.T-3878

State of Oregon Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

G & R Auto Wreckers, Inc. Gary W. Standish & Robert W. Standish 4825 Ridge Drive N.E. Salem, OR 97303

The applicant owns and operates a wrecking yard in Independence, Oregon.

Application was made for tax credit for a water pollution control facility leased by the applicant. The applicant has provided authorization from the lessor to receive tax credit certification.

2. <u>Description of Facility</u>

The wastewater treatment facility consists of an RGF Ultrasorb Model SD-II, closed loop oil/water separation and recycle system.

Claimed Facility Cost: \$13,870 Applicant provided copies of invoices.

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190 and by OAR Chapter 340, Division 16.

The facility met statutory deadline in that installation of the facility was substantially completed on October 15, 1991 and the application for certification was found to be complete on November 6, 1992, within 2 years of substantial completion of the facility.

4. <u>Evaluation of Application</u>

a. The facility is eligible because the sole purpose of the facility is to prevent and control a substantial quantity of water pollution. This prevention and control is accomplished by the use of treatment works for industrial waste as defined in ORS 468B.005.

Application No. T-3878 Page 2

The applicant dismantles wrecked automobiles and sells the parts to the general public. As part of the operation the parts are pressure washed to remove oil and grease. The wastewater from the washing operation was allowed to pond on the ground and flow off site to a drainage ditch and eventually to the waters of the state.

In an effort to eliminate the above problem the applicant leased and installed a package treatment system to collect and treat the wash water. The system is an RGF Ultrasorb, Model SD-II. The package plant retains 98% of the contaminants. The oil and grease that is removed from the wash water is collected by an approved oil recycler.

b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

Waste oil recovered is collected and stored on site. A qualified oil recyler picks up the recovered oil for proper disposal. The applicant pays a used oil recyler for the disposal of the recovered oil.

2) The estimated annual percent return on the investment in the facility.

There is no revenue generated from this facility and therefore no return on investment.

3) The alternative methods, equipment and costs for achieving the same pollution control objective.

The applicant evaluated seven different types of equipment to achieve the same pollution control objective. The RGF Ultrasorb Model SD-II was selected due to compatibility with existing site conditions.

 Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

There are no savings from the facility. The cost of

maintaining and operating the facility is \$1,700 annually.

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid waste or to recycling or properly disposing of used oil.

There are no other factors to consider in establishing the actual cost of the facility properly allocable to prevention, control or reduction of pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

- 5. <u>Summation</u>
 - a. The facility was constructed in accordance with all regulatory deadlines.
 - b. The facility is eligible for tax credit certification in that the sole purpose of the facility is to prevent and control a substantial quantity of water pollution and accomplishes this purpose by the installation of an industrial wastewater treatment system.
 - c. The facility complies with DEQ statutes and rules.
 - d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$13,870 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-3878.

Timothy C. McFetridge IW\WC10\WC10991.5 (503) 378-8240 November 17, 1992

Application No.TC-3882 Page 1 of 4

State of Oregon Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Polk County Farmers' Cooperative P.O. Box 47 Rickreall, Oregon 97371

The applicant owns and operates a machine shop at 185 West Main Extension in the city of Hillsboro, Oregon.

Application was made for tax credit for a water pollution control facility.

2. Description of Facility

The facility is a 30' by 40' concrete wash pad with collection trough and package unit consisting of a multimedia filter, carbon absorption, oil skimming and separation, aeration, and solids recovery. The facility also includes a building, to house the package unit, which is weatherized to prevent freezing. The function of the facility is to collect and treat wastewater generated in the degreasing and washing of parts and equipment and to recover and recycle heavy oil. Treated wastewater is disposed of to the sanitary sewer and solids are disposed of through approved methods. Construction of the facility commenced on March 30, 1992, and was completed on June 9, 1992. The facility was placed into operation on June 10, 1992.

The applicant is requesting a tax credit for the spill pad and package unit.

Claimed Facility Cost: \$25,816.12 consisting of: (Accountant's Certification was provided).

American Equipment Company Package Unit	\$ 5,537.00
Building Materials	\$ 767.68
Gutters	\$ 167.00
Plumbing	\$ 1,664.26

Application No. TC-3882 Page 2 of 4

Concrete Gravel	\$ \$	1,865.85 602.28
Steel Fabrication	\$	892.00
Drywall	\$	500.00
Sewer Connections	\$	1,930.00
Electrical	\$	468.50
Sheet Metal	\$	829.30
Millwork	\$	487.31
Excavation	\$	445.00
Permits, Hook-up fees	\$	3,052.09
Architectural fees	\$	550.25
Labor	\$	3,412.50
Overhead and Profit	\$	2,645.10

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190 and by OAR Chapter 340, Division 16.

The facility met statutory deadline in that construction of the facility was substantially completed on June 9, 1992, and the application for certification was found to be complete on November 9, 1992, within 2 years of substantial completion of the facility.

4. <u>Evaluation of Application</u>

a. The facility is eligible because the sole purpose of the facility is to prevent a substantial quantity of pollution.

Prior to construction, wastewater generated in the degreasing and washing of parts and equipment was simply allowed to drain to adjacent ground thereby negatively impacting soils and groundwater. The facility will prevent pollution by collecting wastewater and treating it to a level whereby it can be disposed of to the sanitary sewer. The facility will also allow for the recovery of used oil.

b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

> Although the facility allows for the recovery of used oil, according to facility staff, it does not convert waste products (oil) into a salable commodity. A disposal fee is imposed by the recycler.

> The percent allocable determined by using this factor would be 100%.

2) The estimated annual percent return on the investment in the facility.

The average annual cash flow for the facility is \$1,320. This value is derived by the income obtained from the steam cleaning of customer parts less operating costs.

Dividing the average annual cash flow into the cost of the facility gives a return on investment factor of 19.6 for a useful life of 10 years. This equates to an annual percent return on investment (ROI) of 0%.

Therefore, the portion of actual costs properly allocable to pollution control is 100%.

3) The alternative methods, equipment and costs for achieving the same pollution control objective.

The facility indicated that the only alternative considered was a "closed loop" system. This system, with the same pad, was estimated to cost \$32,000 and was rejected due to higher expense.

4) Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

> There are no savings or increase in costs as a result of the facility installation.

Application No. TC-3882 Page 4 of 4

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil.

> There are no other factors to consider in establishing the actual cost of the facility properly allocable to prevention, control or reduction of pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

5. <u>Summation</u>

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for tax credit certification in that the sole purpose of the facility is to prevent a substantial quantity of pollution.
- c. The facility complies with DEQ statutes and permit conditions.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$25,816.12 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3882.

Doug Jones:DTJ TC-3882 (503) 229-6385 (x248) November 19, 1992

State of Oregon Department of Environmental Quality

RECLAIMED PLASTIC TAX CREDIT TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Lane International Lane T. Robertson PO Box 925 Tualatin, OR 97062

The applicant owns and operates a plastic product manufacturing facility at Tualatin, Oregon.

Application was made for Reclaimed Plastic Tax Credit.

2. Description of Equipment, Machinery or Personal Property

Claimed Investment Cost: \$6,660.00 (Accountant's Certification was provided.)

The claimed equipment is a plastic granulator, Model G1012P1, 10 HP, 460 volt with three blade rotor, 5/16 screen, robot hopper, base and bin, which will be used for reprocessing reclaimed plastic prior to the manufacture of reclaimed plastic products.

3. <u>Procedural Requirements</u>

The investment is governed by ORS 468.925 through 468.965, and by OAR Chapter 340, Division 17.

The investment met all statutory deadlines in that:

- a. The request for preliminary certification was filed October 14, 1992. The 30-day prior notice requirement was waived on October 15, 1992.
- b. The request for preliminary certification was approved on October 15, 1992, before the application for final certification was made.
- c. The investment was made on October 20, 1992, prior to June 30, 1995.

Application No. TC-3885 Page 2

- d. The request for final certification was submitted on November 25, 1992 and was filed complete on December 4, 1992.
- 4. <u>Evaluation of Application</u>
 - a. The investment is eligible because the equipment is necessary to process reclaimed plastic.
 - b. Allocable Cost Findings

In determining the portion of the investment costs properly allocable to reclaiming and recycling plastic material, the following factors from ORS 468.960 have been considered and analyzed as indicated:

1) The extent to which the claimed collection, transportation, processing or manufacturing process is used to convert reclaimed plastic into a salable or usable commodity.

This factor is applicable because the sole purpose of this granulator is to process reclaimed plastic purchased from other companies. In-house scrap is being processed through an existing small granulator.

 The alternative methods, equipment and costs for achieving the same objective.

The applicant indicated that they knew of no alternative method which could be utilized to process this product.

3) Any other factors which are relevant in establishing the portion of the actual cost of the investment properly allocable to the collection, transportation or processing of reclaimed plastic or to the manufacture of a reclaimed plastic product.

There are no other factors to consider in establishing the actual cost of the investment properly allocable to reclaiming and recycling plastic material.

The actual cost of the investment properly allocable to processing reclaimed plastic as determined by using these factors is 100%.

Application No. TC-3885 Page 3

5. <u>Summation</u>

- a. The investment was made in accordance with all regulatory deadlines.
- b. The investment is eligible for final tax credit certification in that the equipment is necessary to process reclaimed plastic.
- c. The qualifying business complies with DEQ statutes and rules.
- d. The portion of the investment cost that is properly allocable to reclaiming and recycling plastic is 100%.

6. <u>Director's Recommendation</u>

Based upon these findings, it is recommended that a Reclaimed Plastic Tax Credit Certificate bearing the cost of \$6,660.00 with 100% allocated to reclaiming plastic material, be issued for the investment claimed in Tax Credit Application No. TC-3885.

WRB:b RECY\RPT\YB12059R (503) 229-5934 December 4, 1992

Application No. TC-3904 Page 1

State of Oregon Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Veldon D. Kropf 25070 Peoria Road Harrisburg, Oregon 97446

The applicant owns and operates a grass seed farm operation in Linn County, Oregon.

Application was made for tax credit for an air pollution control facility.

2. <u>Description of Claimed Facility</u>

The facility described in this application is a 198' x 124' x 22' pole construction, metal clad, grass straw storage shed, located at 25070 Peoria Road, Harrisburg, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: \$99,003.54 (Accountant's Certification was provided.)

3. <u>Description of farm operation plan to reduce open field burning.</u>

The applicant has 1,550 acres of annual grass seed under cultivation. The applicant states that prior to using alternatives as many of the 1,550 acres of annual grass seed fields were registered and open field burned as the weather and smoke management program allowed. Acquisition of the straw storage facility provided an open field burning reduction of 500 acres and as the open field burning phasedown continues the storage facility will accommodate an additional 500 acres of open field burning reduction on the applicant's farm. Construction of the straw storage shed provides the applicant with reliable custom baling service.

4. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16. The facility has met all statutory deadlines in that:

Construction of the facility was substantially completed on August 20, 1992. The application for final certification was found to be complete on November 7, 1992. The application was submitted within two years of substantial completion of the facility.

Application No. TC-3904 Page 2

5. <u>Evaluation of Application</u>

a. The facility is eligible under ORS 468.150 because the facility is an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution. This reduction is accomplished by reduction of air contaminants, defined in ORS 468A.005; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f))A): "Equipment facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1. The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

The facility promotes the conversion of a waste product (straw) into a salable commodity by providing grass seed straw protection from inclement weather.

2. The estimated annual percent return on the investment in the facility.

The actual cost of claimed facility (\$99,003.54) divided by the average annual cash flow (\$6,295) equals a return on investment factor of 15.73. Using Table 1 of OAR 340-16-030 for a life of 20 years, the annual percent return on investment is 2.5%. Using the annual percent return of 2.5% and the reference annual percent return of 17%, 85% is allocable to pollution control.

3. The alternative methods, equipment and costs for achieving the same pollution control objective.

The method chosen is an accepted method for reduction of air pollution. The method is one of the least costly, most effective methods of reducing air pollution.

4. Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

There is a savings of burn fees to the applicant as a result of the facility, but this is more than offset by flail chopping, plowing and disking expenses.

Application No. TC-3904 Page 3

5. Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air pollution.

There are no other factors to consider in establishing the actual cost of the facility properly allocable to prevention, control or reduction of air pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 85%.

6. <u>Summation</u>

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible under ORS 468.150 as an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution as defined in ORS 468A.005.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 85%.

7. Department of Agriculture's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$99,003.54, with 85% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3904.

Jim Britton, Manager Smoke Management Program Natural Resources Division Oregon Department of Agriculture (503)_378-6792

jb:bmTC3904 December 24, 1992

Application No. T-3914

STATE OF OREGON Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

United Disposal Service, Inc. Santiam Sanitary Service PO Box 189 Sublimity, OR 97385

The applicant owns and operates a solid waste and recyclable materials collection service and recyclable materials collection depot in Sublimity, Oregon. Application was made for tax credit for a solid waste pollution control facility.

2. <u>Description of Facility</u>

The facility is a recyclable materials collection depot including loading ramp, collection containers, oil collection facility, asphalt slab, storage and maintenance building, gate house/office, instructional signs, and depot monitoring camera. Only 50 % of the project paving is used solely for recycling and only 20% of the storage, gatehouse, and maintenance building is used solely for recycling.

	Item	Cost	<pre>% Allocated to Recycling</pre>	Total
a.	Additional land	27,621	100%	\$ 27,621
b	Additional fencing	5,000	100%	5,000
c.	Site preparation & paving	89,700	50%	44,850
d.	Storage, gatehouse,			,
	maintenance building	303,329	20%	60,666
е	Informational signs	300	100%	300
£	Depot monitoring camera	3,500	100%	3,500
g.	Drop boxes	14,950	100%	14,950

Claimed facility cost:

\$ 156,887

An accountant's certification and invoices were provided.

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190 and by OAR Chapter 340, Division 16.

The Facility met all statutory deadlines in that:

- a. Construction of the facility was begun in July 1, 1991 and substantially completed by June 1, 1992.
- b. The facility was placed into operation on June 1, 1992.
- c. The application for tax credit was submitted to the Department November 20, 1992, within two years of substantial completion of the facility.
- d. The application was found to be technically complete and was filed on December 4, 1992.

Tax Credit Application No. T-3914 Page 2

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to reduce a substantial quantity of solid waste through recycling. The applicant claimed only those portions of the complete recycling and solid waste collection depot which were used for recycling. Those portions used for solid waste collection were not included as a part of the "facility"
- b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

This factor is applicable because the materials processed by the facility, glass, aluminium, steel, cardboard, newspaper, and used oil, are recovered for recycling and are sold as commodities.

The percent allocable by using this factor would be 100%

2) The estimated annual percent return on the investment in the facility.

The recycling facility was constructed as a part of a recycling program required by the state and local solid waste management programs. The recycling program is subsidized with income from solid waste collection services. The average annual cash flow for the recycling facility is a negative value because the cost of operation is greater than the sum of the income from the sale of recyclables plus the savings from reduced disposal fees. The percent return on investment is zero. As a result, the percent allocable is 100%

3) <u>The alternative methods, equipment, and costs for achieving</u> the same pollution control objective.

The applicant has not identified and is not aware of alternative methods for achieving the same objective. It is the Department's determination that the proposed facility is an acceptable method of achieving the pollution control objective.

4) <u>Any related savings or decrease in costs which occur or may</u> occur as a result of the installation of the facility.

There are no savings from this facility. The average annual operating cost exceeds the income from this facility and has been included in the ROI calculations.

Tax Credit Application No. T-3914 Page 3

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water, or noise pollution or solid or hazardous waste, or top recycle of properly dispose of used oil.

There are no other factors to consider in establishing the actual cost of the facility properly allocable to material recovery from solid waste.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

5. <u>Summation</u>

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for tax credit certification in that the sole purpose of the facility is to reduce a substantial quantity of solid waste through recycling.
- c. The facility complies with DEQ statutes and permit conditions.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. <u>Director's Recommendation</u>

Based upon the findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$156,887 with 100% allocable to pollution control be issued for the facility claimed in Tax Credit Applications No. T-3914.

WRB:wrb wp51/tax/tc3914rr.sta (503)229-5934 December 20, 1992

Application No. TC-3915

State of Oregon Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

William J. Stellmacher 30416 Stellmacher Drive SW Albany OR 97321

The applicant owns and operates a grass seed farm operation in Linn County, Oregon.

Application was made for tax credit for air pollution control equipment.

2. Description of Claimed Facility

The equipment described in this application is a Freeman 370T Baler and John Deere 2955 Tractor, located at 30416 Stellmacher Drive SW, Albany, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: Freeman 370T Baler \$41,500 JD 2955 Tractor <u>\$40,500</u>

\$82,000

(Accountant's Certification was provided.)

3. Description of farm operation plan to reduce open field burning

The applicant has 900 acres of perennial grass seed varieties under cultivation. The applicant indicates that prior to 1990 it was customary to register up to 700 acres and open field burn an average of 350 acres annually. The remaining acreage was baled off, propane flamed, and the straw stacks open burned.

In recent years the applicant has made efforts to eliminate open field burning and has also substantially reduced propane flaming and stack burning. His initial investment was in a straw storage shed and John Deere 300 stacker. He relied on custom balers to pick-up and package the straw in the fields then he would move it to fieldside or storage.

To provide greater certainty that the straw would be baled and removed from the field before the weather could damage it, the applicant has invested in his own tractor and baler. The applicant states that this positioning eliminates the need for open field burning and substantially reduces the need to propane flame.

4. <u>Procedural Requirements</u>

The equipment is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16. The equipment has met all statutory deadlines in that:

Purchase of the equipment was substantially completed on May 26, 1992. The application was submitted on December 2, 1992 and the application for final certification was found to be complete on December 16, 1992. The application was submitted within two years of substantial purchase of the equipment.

5. Evaluation of Application

a. The equipment is eligible under ORS 468.150 because the equipment is an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution. This reduction is accomplished by reduction of air contaminants, defined in ORS 468A.005; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

b. Eligible Cost Findings

In determining the percent of the pollution control equipment cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1. The extent to which the equipment is used to recover and convert waste products into a salable or usable commodity.

The equipment promotes the conversion of a waste product (straw) into a salable commodity by providing the means to pick it up out of the fields and package it for storage where it is protected from inclement weather.

2. The estimated annual percent return on the investment in the equipment.

There is no annual percent return on the investment as applicant claims no annual cash flow.

The established average annual operating hours for tractors is set at 450 hours. To obtain a total percent allocable, the annual operating hours per implement used in reducing acreage open field burned is as follows:

Application No. TC-3915 Page 3

<u>Implement</u>	Acres worked	<u>Acres/hr</u>	Annual operating <u>hours</u>
Square baler	800	4	200
Total annual	operating hours		200

The total annual operating hours of 200 divided by the average annual operating hours of 450 produces a percent allocable of 44%.

Equipment	Claimed	Percent	Cost
	<u>Cost</u>	<u>allocable</u>	<u>allocable</u>
Freeman Baler	\$41,500	100%	\$41,500
John Deere Tractor	<u>40,500</u>	44%	<u>17,820</u>
Total	\$82,000	72%	\$59,320

3. The alternative methods, equipment and costs for achieving the same pollution control objective.

The method chosen is an accepted method for reduction of air pollution. The method is one of the least costly, most effective methods of reducing air pollution.

4. Any related savings or increase in costs which occur or may occur as a result of the purchase of the equipment.

There is an increase in operating costs of \$3,500 to annually maintain and operate the equipment. These costs were considered in the return on investment calculation.

5. Any other factors which are relevant in establishing the portion of the actual cost of the equipment properly allocable to the prevention, control or reduction of air pollution.

There are no other factors to consider in establishing the actual cost of the equipment properly allocable to prevention, control or reduction of air pollution.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 72%.

6. <u>Summation</u>

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible under ORS 468.150 as an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution as defined in ORS 468A.005.

Application No. TC-3915 Page 4

- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 72%.

7. Department of Agriculture's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$82,000, with 72% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3915.

Jim Britton, Manager Smoke Management Program Natural Resources Division Oregon Department of Agriculture (503) 378-6792

jb:bmTC3915 December 17, 1992

Application No. TC-3917

State of Oregon Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. <u>Applicant</u>

C & E Curtis Enterprises Inc. 27400 NW St. Helens Road Scappoose, OR 97056

The applicant owns and operates an automotive repair establishment in Scappoose, Oregon.

Application was made for tax credit for an air pollution control facility which is owned by the applicant.

2. <u>Description of Facility</u>

Facility is a machine which removes and cleans auto air conditioner coolant. The machine is self contained and includes pumps, tubing, valves and filters which rid the spent coolant of oil, excess air, water, acids and contaminant particles.

The applicant has identified the useful life of the equipment to be ten years.

Claimed Facility Cost: \$2,599.95 (Costs have been documented)

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16.

Installation of the facility was substantially completed on September 30, 1992. The facility was placed into operation on September 30, 1992. The application for final certification was submitted to the Department on December 7, 1992, within two years of substantial completion of the facility. The application was found to be complete on December 23, 1992.

4. Evaluation of Application

a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution. This reduction is accomplished by capturing and/or recycling air contaminants, as

Application No. TC-3917 Page #2

defined in ORS 468.275. The requirement is to comply with ORS 468.612-621 and OAR 340-22-410 to 415.

Eligible equipment must be certified by Underwriters Laboratory (UL) as meeting the requirements and specifications of UL1963 and the Society of Automotive Engineers (SAE) standards, J1990 and J1991, or other requirements and specifications determined by the Department as being equivalent. The facility meets these requirements.

b. Eligible Cost Findings

In determining the percent of the facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

The recovery and recycling machine serves two purposes. It prevents the release of spent auto A/C coolant to the environment, thereby meeting Department regulations requiring capture of this air contaminant. Second, it provides a means to recover and clean waste coolant for reuse as an auto A/C coolant.

2) The estimated annual percent return on the investment in the facility.

The percent return on investment from facility use was calculated using coolant cost and retrieval rate data from the applicant and generic cost of facility operations estimated by the Department.

Specifically, the applicant estimated the cost to applicant of virgin coolant at \$6.50/pound. The applicant estimated an annual coolant recovery rate of 40 pounds.

In estimating the operating costs for use of the recovery and recycling machine, the Department developed a standardized methodology which considers the following factors:

D Electricity consumption of machine

Application No. TC-3917 Page #3

- o Additional labor to operate machine
- o Machine maintenance costs
- o Depreciation of machine

Based on these considerations, the applicant estimated the return on investment to be less than zero, in that machine operating costs exceeded income from the use of the machine.

3) The alternative methods, equipment and costs for achieving the same pollution control objective.

The applicant has identified no alternatives.

 Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

There are savings from the facility to recover and reuse coolant. The applicant may use the recycled coolant in customer vehicles. In this case the savings are tied to the displaced cost of virgin coolant. Alternately, the applicant could sell the coolant to a second shop where the coolant is used. In this case the savings to the applicant are tied to the sales price of recycled coolant.

However, for this applicant increases in business operations and maintenance costs exceeded facility savings. These cost estimates are discussed in 2) above.

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil.

There are no other factors to consider in establishing the actual cost of the facility properly allocable to prevention, control or reduction of pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

Application No. TC-3917 Page #4

- 5. <u>Summation</u>
 - a. The facility was constructed in accordance with all regulatory deadlines.
 - b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to reduce air pollution.
 - c. The facility complies with DEQ statutes and rules.
 - d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. <u>Director's Recommendation</u>

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$2,599.95 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3917.

Brian Fagot:a LEGAL\AH70427 December 23, 1992

State of Oregon Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. <u>Applicant</u>

Aaltonen & James, Inc. 11233 SE Foster Road Portland, OR 97266

The applicant owns and operates a wrecking yard in Portland, Oregon.

Application was made for tax credit for an air pollution control facility which is owned by the applicant.

2. <u>Description of Facility</u>

Facility is a machine which removes and cleans auto air conditioner coolant. The machine is self contained and includes pumps, tubing, valves and filters which rid the spent coolant of oil, excess air, water, acids and contaminant particles.

The applicant has identified the useful life of the equipment to be five years.

Claimed Facility Cost: \$2,745.00 (Costs have been documented)

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16.

Installation of the facility was substantially completed on August 8, 1991. The facility was placed into operation on August 8, 1991. The application for final certification was submitted to the Department on December 11, 1992, within two years of substantial completion of the facility. The application was found to be complete on December 23, 1992.

4. <u>Evaluation of Application</u>

a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution. This reduction is accomplished by capturing and/or recycling air contaminants, as

Application No. TC-3920 Page #2

defined in ORS 468.275. The requirement is to comply with ORS 468.612-621 and OAR 340-22-410 to 415.

Eligible equipment must be certified by Underwriters Laboratory (UL) as meeting the requirements and specifications of UL1963 and the Society of Automotive Engineers (SAE) standards, J1990 and J1991, or other requirements and specifications determined by the Department as being equivalent. The facility meets these requirements.

b. Eligible Cost Findings

In determining the percent of the facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

 The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

The recovery and recycling machine serves two purposes. It prevents the release of spent auto A/C coolant to the environment, thereby meeting Department regulations requiring capture of this air contaminant. Second, it provides a means to recover and clean waste coolant for reuse as an auto A/C coolant.

2) The estimated annual percent return on the investment in the facility.

The percent return on investment from facility use was calculated using coolant cost and retrieval rate data from the applicant and generic cost of facility operations estimated by the Department.

Specifically, the applicant estimated the cost to applicant of virgin coolant at \$5.44/pound. The applicant estimated an annual coolant recovery rate of 100 pounds.

In estimating the operating costs for use of the recovery and recycling machine, the Department developed a standardized methodology which considers the following factors:

o Electricity consumption of machine

Application No. TC-3920 Page #3

- o Additional labor to operate machine
- o Machine maintenance costs
- o Depreciation of machine

Based on these considerations, the applicant estimated the return on investment to be less than zero, in that machine operating costs exceeded income from the use of the machine.

3) The alternative methods, equipment and costs for achieving the same pollution control objective.

The applicant has identified no alternatives.

 Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

There are savings from the facility to recover and reuse coolant. The applicant may use the recycled coolant in customer vehicles. In this case the savings are tied to the displaced cost of virgin coolant. Alternately, the applicant could sell the coolant to a second shop where the coolant is used. In this case the savings to the applicant are tied to the sales price of recycled coolant.

However, for this applicant increases in business operations and maintenance costs exceeded facility savings. These cost estimates are discussed in 2) above.

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil.

There are no other factors to consider in establishing the actual cost of the facility properly allocable to prevention, control or reduction of pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

Application No. TC-3920 Page #4

5. <u>Summation</u>

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to reduce air pollution.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. <u>Director's Recommendation</u>

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$2,745 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3920.

Brian Fagot:a LEGAL\AH70428 December 23, 1992

Application No. TC-3921

State of Oregon Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Action Auto & Radiator 880 S Adams Drive Madras, OR 97741

The applicant owns and operates an automobile repair establishment in Madras, Oregon.

Application was made for tax credit for an air pollution control facility which is owned by the applicant.

2. <u>Description of Facility</u>

Facility is a machine which removes and cleans auto air conditioner coolant. The machine is self contained and includes pumps, tubing, valves and filters which rid the spent coolant of oil, excess air, water, acids and contaminant particles.

The applicant has identified the useful life of the equipment to be five years.

Claimed Facility Cost: \$3,000.00 (Costs have been documented)

3. Procedural Requirements

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16.

Installation of the facility was substantially completed on August 7, 1992. The facility was placed into operation on August 7, 1992. The application for final certification was submitted to the Department on December 11, 1992, within two years of substantial completion of the facility. The application was found to be complete on December 23, 1992.

4. <u>Evaluation of Application</u>

a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution. This reduction is accomplished by capturing and/or recycling air contaminants, as

Application No. TC-3921 Page #2

defined in ORS 468.275. The requirement is to comply with ORS 468.612-621 and OAR 340-22-410 to 415.

Eligible equipment must be certified by Underwriters Laboratory (UL) as meeting the requirements and specifications of UL1963 and the Society of Automotive Engineers (SAE) standards, J1990 and J1991, or other requirements and specifications determined by the Department as being equivalent. The facility meets these requirements.

b. Eligible Cost Findings

In determining the percent of the facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

The recovery and recycling machine serves two purposes. It prevents the release of spent auto A/C coolant to the environment, thereby meeting Department regulations requiring capture of this air contaminant. Second, it provides a means to recover and clean waste coolant for reuse as an auto A/C coolant.

2) The estimated annual percent return on the investment in the facility.

The percent return on investment from facility use was calculated using coolant cost and retrieval rate data from the applicant and generic cost of facility operations estimated by the Department.

Specifically, the applicant estimated the cost to applicant of virgin coolant at \$5.20/pound. The applicant estimated an annual coolant recovery rate of 200 pounds.

In estimating the operating costs for use of the recovery and recycling machine, the Department developed a standardized methodology which considers the following factors:

o Electricity consumption of machine

Application No. TC-3921 Page #3

- o Additional labor to operate machine
- o Machine maintenance costs
- o Depreciation of machine

Based on these considerations, the applicant estimated the return on investment to be less than zero, in that machine operating costs exceeded income from the use of the machine.

3) The alternative methods, equipment and costs for achieving the same pollution control objective.

The applicant has identified no alternatives.

 Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

There are savings from the facility to recover and reuse coolant. The applicant may use the recycled coolant in customer vehicles. In this case the savings are tied to the displaced cost of virgin coolant. Alternately, the applicant could sell the coolant to a second shop where the coolant is used. In this case the savings to the applicant are tied to the sales price of recycled coolant.

However, for this applicant increases in business operations and maintenance costs exceeded facility savings. These cost estimates are discussed in 2) above.

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil.

There are no other factors to consider in establishing the actual cost of the facility properly allocable to prevention, control or reduction of pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

Application No. TC-3921 Page #4

- 5. <u>Summation</u>
 - a. The facility was constructed in accordance with all regulatory deadlines.
 - b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to reduce air pollution.
 - c. The facility complies with DEQ statutes and rules.
 - d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. <u>Director's Recommendation</u>

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$3,000.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3921.

Brian Fagot:a LEGAL\AH70429 December 23, 1992

State of Oregon Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. <u>Applicant</u>

R & R Automotive, Inc. 1250 SE 82nd Drive Gladstone, OR 97027

The applicant owns and operates an automotive repair establishment in Gladstone, Oregon.

Application was made for tax credit for an air pollution control facility which is owned by the applicant.

2. <u>Description of Facility</u>

Facility is a machine which removes and cleans auto air conditioner coolant. The machine is self contained and includes pumps, tubing, valves and filters which rid the spent coolant of oil, excess air, water, acids and contaminant particles.

The applicant has identified the useful life of the equipment to be three years.

Claimed Facility Cost: \$3,100.00 (Costs have been documented)

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16.

Installation of the facility was substantially completed on September 22, 1992. The facility was placed into operation on September 22, 1992. The application for final certification was submitted to the Department on December 14, 1992, within two years of substantial completion of the facility. The application was found to be complete on December 23, 1992.

4. <u>Evaluation of Application</u>

a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution. This reduction is accomplished by capturing and/or recycling air contaminants, as

Application No. TC-3925 Page #2

defined in ORS 468.275. The requirement is to comply with ORS 468.612-621 and OAR 340-22-410 to 415.

Eligible equipment must be certified by Underwriters Laboratory (UL) as meeting the requirements and specifications of UL1963 and the Society of Automotive Engineers (SAE) standards, J1990 and J1991, or other requirements and specifications determined by the Department as being equivalent. The facility meets these requirements.

b. Eligible Cost Findings

In determining the percent of the facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

The recovery and recycling machine serves two purposes. It prevents the release of spent auto A/C coolant to the environment, thereby meeting Department regulations requiring capture of this air contaminant. Second, it provides a means to recover and clean waste coolant for reuse as an auto A/C coolant.

2) The estimated annual percent return on the investment in the facility.

The percent return on investment from facility use was calculated using coolant cost and retrieval rate data from the applicant and generic cost of facility operations estimated by the Department.

Specifically, the applicant estimated the cost to applicant of virgin coolant at \$5.50/pound. The applicant estimated an annual coolant recovery rate of 60 pounds.

In estimating the operating costs for use of the recovery and recycling machine, the Department developed a standardized methodology which considers the following factors:

o Electricity consumption of machine

Application No. TC-3925 Page #3

- o Additional labor to operate machine
- o Machine maintenance costs
- o Depreciation of machine

Based on these considerations, the applicant estimated the return on investment to be less than zero, in that machine operating costs exceeded income from the use of the machine.

3) The alternative methods, equipment and costs for achieving the same pollution control objective.

The applicant has identified no alternatives.

 Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

There are savings from the facility to recover and reuse coolant. The applicant may use the recycled coolant in customer vehicles. In this case the savings are tied to the displaced cost of virgin coolant. Alternately, the applicant could sell the coolant to a second shop where the coolant is used. In this case the savings to the applicant are tied to the sales price of recycled coolant.

However, for this applicant increases in business operations and maintenance costs exceeded facility savings. These cost estimates are discussed in 2) above.

5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil.

A distinct portion of this automobile air conditioning coolant recovery and recycling equipment makes an insignificant contribution to the principal purpose of the claimed facility. This coolant recovery equipment has the capability to return (recharge) coolant to automobile air conditioning systems. Recharge capabilities in coolant recovery and recycling equipment is not required by state or federal

Application No. TC-3925 Page #4

law. The additional expense incurred in the purchase of equipment with recharge capabilities is not allocable to pollution control. The Department estimates the additional expense incurred is \$700.00.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 77%.

- 5. <u>Summation</u>
 - a. The facility was constructed in accordance with all regulatory deadlines.
 - b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to reduce air pollution.
 - c. The facility complies with DEQ statutes and rules.
 - d. The portion of the facility cost that is properly allocable to pollution control is 77%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$3,100.00 with 77% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3925.

Brian Fagot:a LEGAL\70430 December 23, 1992

Application No. T-3443

STATE OF OREGON Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Finley Buttes Limited Partnership dba/Finley Buttes Landfill Company Management Environmental, Inc. PO Box 61726 Vancouver, WA 98661

The applicant owns and operates a solid waste landfill in Boardman, Oregon. Application was made for tax credit for a solid waste pollution control facility.

2. <u>Description of Facility</u>

The facility is five groundwater monitoring wells, landfill liners and leachate collection systems for two landfill cells, and a leachate evaporation pond.

The monitoring wells, MW-2, MW-3, MW-4, MW-5, and BMW-1, are constructed of 4-inch diameter flush-threaded Schedule 80 PVC casing with machineslotted, 0.020-inch slot size, diversified prepacked screen with 10 x 20 Colorado filter sand pack. The wells are constructed with flush-mounted locking steel casing to avoid damage. Well MW-2 is 299 feet, MW-3 is 267 feet, MW-4 is 325 feet, MW-5 is 363 feet, and BMW-1 is 286 feet.

The landfill liners and leachate collection system in the two cells, from bottom to top consist of a leak detection system consisting of a HDPE liner, sand, and pipes covered by a geotextile filter; a two-foot layer of selected native soil mixed with water and bentonite through a pug mill and placed on the cell floor in four compacted lifts; a 60 mil HDPE liner membrane; a protective cover of geotextile fabric; a network of six inch leachate collection pipes placed in one foot round drain rock, a protective geotextile fabric; and one foot of native soil.

The leachate evaporation pond is a 160 foot by 160 foot pond, double lined with drainage net between layers of HDPE.

Claimed facility cost : \$3,859,666 consisting of:

Waste cells and leachate collection Leachate evaporation pond Monitoring wells	3,532,701 88,189 238,776
Total	3,859,666
Less: Non allowable costs	(482,464)
Total eligible	3,377,202

An applicants Accountant's Certification was provided. A cost allocation review of this application by an independent contractor has identified \$482,464 in nonallowable costs claimed by the applicant. The eligible facility cost has been reduced for these nonallowable costs.

3. <u>Procedural Requirements</u>

The facility is governed by ORS 468.150 through 468.190 and by OAR Chapter 340, Division 16.

The Facility met statutory deadlines in that construction of the facility was begun in June 21, 1990, and substantially completed by November 1, 1990 and placed into operation on November 1, 1990. The application was submitted to the Department April 29, 1991, within two years of substantial completion of the facility. The application was found to be technically complete on September 25, 1992.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department (DEQ) and the federal Environmental Protection Agency (EPA), to prevent ground water pollution. The requirement is to comply with OAR 340-61, 40 CFR 258.40, and DEQ Solid Waste Permit number 394.
- b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

- The extent to which the facility is used to recover and convert waste products into a salable or usable commodity. None, the facility does not recover or convert waste products,(leachate) into a salable or usable commodity.
- 2) The estimated annual percent return on the investment in the facility.

There is no return on investment for this facility because the applicant claims there is no income derived from the monitoring wells, liner, or leachate collection system.

- 3) The alternative methods, equipment, and costs for achieving the same pollution control objective. There are no alternatives, the liner and leachate collection system are specified requirements of DEQ Solid Waste Permit number 394.
- 4) Any related savings or decrease in costs which occur or may occur as a result of the installation of the facility. There are no savings realized from the installation of the facility.

Application No. 3443 Page 3

- 5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water, or noise pollution or solid or hazardous waste, or top recycle of properly dispose of used oil.
 - a) The Environmental Quality Commission has directed that tax credit applications at or above \$250,000 go through an additional accounting review to determine if costs were properly allocated. This review was preformed under contract by the accounting firm of Coopers and Lybrand. Other than the adjustment for nonallowable facility costs, the cost allocation review of this application has identified no issues to be resolved.
 - b) There are no other factors to be considered in establishing the actual cost of the facility properly allocable to prevention, control or reduction of pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

5. <u>Summation</u>

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department and federal Environmental Protection Agency to prevent ground water pollution.
- c. The facility complies with DEQ statutes and permit conditions.
- d. An independent accounting firm under contract with the Department has concluded that no further procedures be preformed on T-3443, other than the adjustment for nonallowable costs in this report.
- e. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. <u>Director's Recommendation</u>

Based upon the findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$3,377,202 with 100% allocable to pollution control be issued for the facility claimed in Tax Credit Application No. T 3443.

WRB:wrb wp51\tax\tc3443rr.sta (503)229-5934 December 31, 1992 certified public accountants

2700 First Interstate Tower Fortland, Oregon 97201

in principal areas of the world

: telephone (503) 227-8600

Coopers &Lybrand

Environmental Quality Commission 811 S.W. Sixth Ave. Portland, OR 97204

At your request, we have performed certain agreed upon procedures with respect to Finley Buttes Landfill Company's (the Company) Pollution Control Tax Credit Application No. 3443 regarding the Finley Buttes Landfill Facility in Morrow County, Oregon (the Facility). The aggregate claimed Facility costs on the Application was \$3,859,666. The following agreed upon procedures and related finding are as follows:

1. We read the Application, Oregon Revised Statutes on Pollution Control Facilities Tax Credits-Sections 468.150 - 468.190 (the Statutes) and the Oregon Administrative Rules on Pollution Control Tax Credits-Sections 340-16-005 through 340-16-050 (OARs).

2. We discussed the Application and Statutes with John Fink of the DEQ.

3. We discussed the Application and Statutes with Jim Weisgerber, Controller, and Bryan Johnson, Engineering Consultant, of the Company and Bruce Bloch of Henton & Company, C.P.A., the Company's accountant.

4. We inquired as to whether there were any direct or indirect Company costs charged to the Facility costs claimed in the Application. We were informed that no such costs were charged. Based on our review of supporting documentation discussed in item no. 5 below, there does not appear to be any direct or indirect Company costs claimed in the Application.

5. We reviewed supporting documentation for 89% of the amount claimed on the Application through review of vendor invoices. All costs which we reviewed supporting the Application appeared to be from third party vendors.

6. We discussed with Bryan Johnson, Engineering Consultant for the Company, the extent to which excavation costs were excluded from the Application. This was accomplished by reviewing specific contractor invoices (see item no. 5) with Mr. Johnson. We determined that the Company had not properly excluded from the Application \$482,464 of excavation and other related costs billed by Delhur Industries. Accordingly, the Facility costs claimed on the Application should have been \$3,377,202 instead of \$3,859,666.

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Because the above procedures do not constitute an audit conducted in accordance with generally accepted auditing standards, we do not express an opinion on any of the items referred to above. In connection with the procedures referred to above, no matters came to our attention that caused us to believe that the Application should be adjusted, except for the \$482,464 of costs noted in item no. 6 above. Had we performed additional procedures, or had We conducted an audit of the financial statements of the Company in accordance with generally accepted auditing standards, other matters might have come to our attention that would have been reported to you. This report relates only to the items specified above and does not extend to any financial statements of the Company taken as a whole.

This report is solely for the use of the State of Oregon Environmental Quality Commission and the DEQ in evaluating the Company's Pollution Control Tax Credit Application and should not be used for any other purpose.

Coopers - Lybrand

Portland, Oregon December 8,1992

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Date: January 12, 1993

To: Environmental Quality Commission

From: Fred Hansen, Director

Subject: Agenda Item C-1, January 29, 1993, EQC Meeting

Pulp Mill Contested Case: Consideration of Agreement Regarding Enforceability of Dioxin and Other Provisions of the Order that are not Subject to Reconsideration

At the July 23, 1992 EQC meeting, the Commission considered and granted petitions for reconsideration of the AOX related provisions of the April 16, 1992 Findings of Fact and Conclusions of Law and Final Order in the "Pulp Mill Contested Case" (appeal of NPDES Permit No. 100715 issued to the City of St. Helens on November 14, 1990, and NPDES Permit No. 100716 issued to James River II, Inc. on November 14, 1990). The order granting reconsideration, dated August 10, 1992, limited the scope of reconsideration to those provisions of the order relating to "...organochlorines other than dioxin (2,3,7,8 TCDD) including but not limited to the determination of the best available technology for controlling such discharges." The intent of the Commission was clear that the dioxin related provisions of the April 16, 1992 order were final and in effect.

Upon review of the petitions and motions filed with the Court of Appeals, counsel for the Department concluded that a Stipulation and Agreement between the Mills and the Es Commission regarding the enforceability of the dioxin related provisions of the April 16, 1992 Order was appropriate. The basic purpose of the document is to assure that the dioxin provisions are in effect now, even though judicial review of these provisions may await resolution of the AOX issue.

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report ritA large print copy of this report is available upon request.

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Memo To: Environmental Quality Commission Agenda Item C-1 January 29, 1993 Meeting Page 2

Notice has been provided to all parties in the Pulp Mill Contested Case that the Commission will consider a proposed Stipulation and Agreement between the mills and the agency at the January 29, 1993 regular EQC meeting. This notice advised that since the proposed Stipulation and Agreement is only for the purpose of clarifying the original intent, testimony would not be received at the meeting.

Recommendation for Commission Action

It is recommended that the Commission approve the proposed Stipulation and Agreement as presented in Attachment A of this report, and authorize the Director to execute the agreement on behalf of the Commission.

Attachments

- A. Proposed Stipulation and Agreement
- B. Notice to the Parties

Reference Documents (available upon request)

- 1. April 16, 1992 Findings of Fact and Conclusions of Law and Final Order
- 2. August 10, 1992 Order Granting Petitions for Reconsideration
- 3. Pulp Mill Petitions for Judicial Review and Motion for Summary Determination of Reviewability (October 8, 1992 and October 9, 1992)

Report Prepared By:Harold SawyerPhone:229-5776Date Prepared:January 12, 1993

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STIPULATION AND AGREEMENT

1. James River II, Inc., Boise Cascade Corporation, the City of St. Helens, and the Environmental Quality Commission hereby enter into the following Stipulation and Agreement relating to National Pollutant Discharge Elimination System Waste Discharge Permit Nos. 100715 and 100716.

BACKGROUND

2. On November 14, 1990, the Department of Environmental Quality of the State of Oregon (DEQ) issued National Pollutant Discharge Elimination System Permit No. 100716 authorizing James River II, Inc.'s (James River's) pulp and paper mill at Wauna, Oregon to continue the discharge of wastewater into the Columbia River. The permit limited the discharge of 2,3,7,8 TCDD (TCDD or dioxin) effective November 15, 1993. The permit also limited the discharge of organochlorines measured as adsorbable organic halogens (AOX) effective November 15, 1995.

3. Also on November 14, 1990, DEQ issued National Pollutant Discharge Elimination System (NPDES) Permit No. 100715 to the City of St. Helens, Oregon (City). The permit authorized the continued discharge of effluent into the Columbia River from the City's sewage treatment plant, subject to specified conditions. These conditions included limits on TCDD, effective November 15, 1993, and limits on the discharge of organochlorines measured as AOX, effective November 15, 1995.

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PAGE 1 - STIPULATION AND AGREEMENT

4. Boise Cascade Corporation (Boise Cascade) operates a pulp and paper mill at St. Helens, Oregon, which discharges process and other effluent into the City's sewage treatment plant. The conditions of the City permit that limit discharges of TCDD and AOX are directed principally at discharges from Boise Cascade's mill into the City's treatment plant.

5. On December 3, 1990, both James River and the City requested a contested case review of permit conditions pursuant to OAR 340-45-035(9). Boise Cascade requested party status in the contested case concerning the City's permit on December 4, 1990. Other interested organizations also requested party status in the contested cases.

6. On December 21, 1990, the Environmental Quality Commission (EQC) granted the requests for contested case hearing and later consolidated them. The EQC also granted the requests for party status.

7. In the contested case proceedings, the City and the mills contested the TCDD and AOX provisions of the permits.

8. On April 16, 1992, the EQC issued its Findings of Fact and Conclusions of Law and Final Order in this proceeding (Order), which denied in substantial part the relief requested by the mills and the City. The order revised the NPDES permits issued to the City and James River.

9. On June 12, 1992, the mills and the City filed petitions for reconsideration or rehearing with the EQC. These ///

PAGE 2 - STIPULATION AND AGREEMENT

petitions were directed only at the AOX conditions of the permits.

10. By order dated August 10, 1992, the EQC granted the petitions for reconsideration. The order states in part:

"The Commission will reconsider those portions of its Findings of Fact and Conclusions of Law and Final Order relating to the mills' NPDES permit conditions regulating the discharge of organochlorines other than dioxin (2,3,7,8 TCDD) including but not limited to the determination of the best available technology for controlling such discharges."

Order Granting Petitions for Reconsideration at 2. A copy of the EQC's Ordering Granting Petitions for Reconsideration (Reconsideration Order) is attached.

11. On October 8, 1992, Boise Cascade and the City filed petitions for judicial review and motions for a summary determination of reviewability of the TCDD limits in the Oregon Court of Appeals. On October 9, 1992, James River filed a similar petition and motion.

STIPULATION

12. The mills, the City and the EQC recognize that there is presently a legal question whether the TCDD provisions of the Order are final for purposes of judicial review under Oregon law.

13. The mills, the City, and the EQC further recognize that the Court of Appeals may rule that the filing of the petitions for reconsideration or rehearing and the EQC's order granting reconsideration of the AOX limit had the effect of negating the finality of the April 16, 1992 Order under the state APA, even

PAGE 3 - STIPULATION AND AGREEMENT

with respect to TCDD. Such a ruling may also have the incidental effect of staying the TCDD limits for regulatory and enforcement purposes until the EQC issues a final order on AOX.

14. The mills, the City, and the EQC agree that the EQC did not intend by its Reconsideration Order on AOX to stay the effectiveness or enforceability of the TCDD limits or other permit limits unrelated to AOX.

15. Subject to paragraph 16 below, the mills and the City agree that all provisions of the NPDES permits unrelated to AOX are, for all regulatory and enforcement purposes, effective and enforceable in accordance with their terms.

16. Notwithstanding the agreement of the mills and the City as stipulated in paragraph 15 above, the mills and the City do not thereby waive any rights they may have now or in the future to judicial review of the TCDD limits. Further, the mills and the City do not waive any rights they may have now or in the future to request the EQC or a court to stay the TCDD limits for regulatory and enforcement purposes.

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PAGE 4 - STIPULATION AND AGREEMENT

17. This stipulation and agreement shall be effective upon signing by the Commission.

Environmental Quality Commission
Date:
James River II, Inc.
Date:
City of St. Helens
Date:
Boise Cascade Corporation
Date:

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PAGE 5 - STIPULATION AND AGREEMENT

Before the Environmental Quality Commission of the State of Oregon

In the Matter of National Pollutant)
Discharge Elimination System Waste)
Discharge Permit No. 100715 issued to)
the City of St. Helens on November 14,)
1990,) NOTICE OF CONSIDERATION
) of
and)
) Proposed STIPULATION AND
National Pollutant Discharge Elimination) AGREEMENT
System Waste Discharge Permit No.)
100716, issued to James River II, Inc.)
on November 14, 1990.)

Notice

- 1. On January 29, 1993, the Environmental Quality Commission, during the course of its regularly scheduled meeting, will consider a proposed Stipulation and Agreement which is intended to clarify the intent and enforceability of the dioxin related provisions of the April 16, 1992 Findings of Fact and Conclusions of Law and Final Order pending conclusion of the reconsideration of provisions related to AOX granted by order dated August 10, 1992.
- 2. The Commission meeting is scheduled to begin at 8:30 a.m. on January 29, 1993. This item is scheduled as the third item on the meeting agenda. Therefore, any parties in the proceeding wishing to be present when the Commission considers this matter should be present when the meeting begins.
- 3. Since this is a clarification of earlier Commission actions, the Commission will not receive oral testimony on this issue at the meeting. Written comments may be considered if they are received by each Commission member and the parties by no later than 5:00 p.m. on Thursday, January 21, 1993.
- 4. As part of its deliberations, the Commission may ask the Department or other parties to respond to questions. The Commission may make a determination on the matter at the meeting, or could elect to defer their decision until a later date.

Dated this <u>12th</u> day of January, 1993.

On behalf of the Commission

RIC

Fred Hansen, Director Department of Environmental Quality

Date: January 12, 1993

To: Environmental Quality Commission

From: Fred Hansen, Director

<u>.</u>

Subject: Agenda Item C-2, January 29, 1993, EQC Meeting

Pulp Mill Contested Case: Petition for Withdrawal of Order Granting Reconsideration

By letter dated December 2, 1992, John Bonine, Western Environmental Law Clinic, filed with the Commission, on behalf of the Northwest Coalition for Alternatives to Pesticides and Columbia River United, a **Petition for Withdrawal of Reconsideration**. Mr. Bonine asked for consideration of his petition at the December 11, 1992 Commission meeting. By letter dated December 8, 1992, Mr. Bonine was advised that his petition would not be considered at the December 11 meeting, and that it had been referred to legal counsel for advice on statutory requirements governing consideration.

Counsel has advised that there are no prescribed procedures or timelines for acting on the **Petition for Withdrawal of Reconsideration**. The Commission is not required to hear argument on the petition, but may elect to do so.

Notice has been provided to all parties in the Pulp Mill Contested Case that the Commission will consider the **Petition for Withdrawal of Reconsideration** at the January 29, 1993 regular EQC meeting. This notice advised that the Commission would not receive oral testimony at the meeting and that any written argument should be received by each Commission member and the parties by no later than 5:00 p.m. on Thursday, January 21, 1993.

The Department is not aware of any information that would lead to a conclusion that the reasons for granting the reconsideration have changed.

Recommendation for Commission Action

It is recommended that the Commission deny the **Petition for Withdrawal of Reconsideration** and authorize the Director to execute an Order of Denial on behalf of the Commission.

[†]A large print copy of this report is available upon request.

Memo To: Environmental Quality Commission Agenda Item C-2 January 29, 1993 Meeting Page 2

<u>Attachments</u>

- A. Petition for Withdrawal of Reconsideration
- B. Notice to the Parties

Reference Documents (available upon request)

- 1. April 16, 1992 Findings of Fact and Conclusions of Law and Final Order
- 2. August 10, 1992 Order Granting Petitions for Reconsideration

Report Prepared By:Harold SawyerPhone:229-5776Date Prepared:January 12, 1993

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Western Environmental Law Clinic

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Michael D. Axline John E. Bonine Attorneys Kathryn Cannon Office Manager

State of Oregon DEPARTMENT OF ENVIRONMENTAL QUALITY DEC 04 1992

OFFICE OF THE DIRECTOR

William W. Wessinger, Chair Oregon Environmental Quality Commission 121 S.W. Salmon, Suite 1100 Portland, Oregon 97204

Dear Mr. Wessigner:

December 2, 1992

Enclosed please find Northwest Coalition for Alternatives to Pesticides and Columbia River United PETITION FOR WITHDRAWAL OF RECONSIDERATION with attachments. Also enclosed is a copy of Columbia River United Notice To File A Citizen Suit Against the Administrator of the United States Environmental Protection Agency. We hope that this matter can be discussed at the next Environmental Quality Commission meeting on December 11, 1992.

Thank you for your assistance in advance. If we can provide any further information or assistance please contact us.

Sincerely, John Bonine

cc:

Transition Committee of the President-Elect Governor Barbara Roberts State Senator Dick Springer United States Senator Albert Gore Fred Hansen, Director of DEQ

enclosure

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION OF THE STATE OF OREGON

In the Matter of the NPDES Waste Discharge Permit No. 3754-J James River II, Inc., Wauna Mill, and the NPDES Waste Discharge Permit No. 100715, City of St. Helens

NCAP/CRU'S PETITION FOR WITHDRAWAL OF RECONSIDERATION

The Northwest Coalition for Alternatives to Pesticides and Columbia River United (NCAP/CRU) petition the Environmental Quality Commission (the "Commission") to withdraw its August 10, 1992, order reconsidering its final order of April 16, 1992.¹ We do so for three reasons: (1) The delay and uncertainty caused by the period of "reconsideration" on the AOX limit is allowing the mills to frustrate Oregon's duty to control the discharge of TCDD (dioxin) into this state's waters, due to litigative maneuvering by the mills. (2) Reconsideration furthermore subverts the purposes and requirements of the Clean Water Act (CWA) regarding "individual control strategies" and will necessitate actions to stimulate EPA to intervene. (3) Finally, the

¹ This final order modified NPDES permits held by James River II, Inc., Boise Cascade Corp. ("the mills"), so as to contain limits on the discharge of organochlorine compounds of 1.5 kg of Adsorbable Organic Halides (AOX)/air dried metric ton of pulp produced (tp), effective November 15, 1995, and limits on the discharge of tetrachlorodibenzo-p-dioxin (TCDD) to achieve a water quality standard of 0.013 ppq, effective November 15, 1993. 'In early June, 1992, the mills petitioned the Commission to reconsider the AOX limit. On August 10, 1992, the Commission granted the mill's petition for reconsideration. The City of St. Helen's permit was also modified, however, the City of St. Helen's did not file a timely petition for reconsideration and therefore should not be part of these proceedings.

not be legally relevant under the statutory duties for "best available technology" for AOX.

Limits on both dioxin and organochlorines generally should have been in place by 1989 or 1990. The procedural actions by the mills are now pushing both the dates of final requirements and the dates of eventual compliance indefinitely into the future. The Commission has the authority to resolve the new aura of confusion.

I. <u>RECONSIDERATION SHOULD BE TERMINATED TO STOP THE MILLS'</u> <u>PLAN TO FRUSTRATE REQUIRED CONTROLS ON TCDD</u>

Reconsideration is allowing the mills to frustrate the process of protecting and restoring Oregon's waters. When the mills first approached the Commission and DEQ after the order of April 1992 they talked only of AOX. When this Commission granted reconsideration in August, it did so with an understanding that it might be changing the AOX limit.

In the Oregon State Court of Appeals, however, the mills are arguing that their petitions for AOX reconsideration and the Commission's August order mean that the <u>TCDD limit</u> is not final until after AOX reconsideration is completed sometime late next year.² In essence, the mills are taking advantage of reconsideration of the AOX limit in late 1993 to try to delay judicial review of the TCDD limit until 1994! This was not what they told the EQC they would do when they first asked for AOX relief, and surely it is not what the EQC intended.

² <u>See</u> Appendix A (mills' motions for summary determination of reviewability in their cases before the State of Oregon Court of Appeals for judicial review of the TCDD limit).

II. <u>RECONSIDERATION SHOULD BE TERMINATED TO AVOID A</u> <u>CITIZEN'S SUIT AGAINST THE EPA TO IMPOSE STRICTER CONTROLS</u>

If, as the mills assert, reconsideration of the AOX limit suspends the *entire* April 1992 final order, including the TCDD limit, then Oregon has violated the Clean Water Act.

Oregon is legally required to adopt Individual Control Strategies (ICSs) for the discharge of TCDD from the mills. See CWA § 304(l)(1)(D).³ Oregon's failure to meet this duty requires EPA to assume Oregon's responsibility and to promulgate its own strategies and limits. See CWA § 304(l)(3).⁴ EPA has not done so because of a good faith reliance on Oregon's various promises to solve its own pollution problems. That reliance is now imperiled by the mills' litigation maneuvers and the status of inaction on the part of the State of Oregon.

CRU includes a copy of a notice of citizen suit seeking to cause EPA to assume Oregon's responsibility. <u>See</u> Appendix B. We will be arguing both legally and as a policy matter that the limits on TCDD that EPA, under new leadership starting in 1993, should adopt for the mills should include limits on other organochlorines that include dioxins and furans that are toxicologically equivalent to TCDD. Such new limits would consequently be stricter than the limits this Commission adopted in its final order.

³ Section 304(l)(1)(D) requires States to adopt ICSs, by February 4, 1989, for the discharge of toxic pollutants into waters which do not meet water quality standards. The Lower Columbia River does not meet the water quality standards for TCDD.

⁴ Section 304(l)(3) requires EPA, by June 4, 1990, to adopt ICSs for States which fail to carry out their duties under section 304(l)(1)(D).

III. <u>RECONSIDERATION SHOULD BE WITHDRAWN BECAUSE THE MILLS</u> <u>DO NOT OFFER LEGALLY RELEVANT EVIDENCE</u>

The mills do not plan to offer evidence that is legally relevant to the validity of the AOX limit.

The AOX limit is based on the Best Available Technology (BAT) standard. To formulate a limit based on the BAT standard, an agency must first determine what economically achievable technology obtains the greatest reduction of pollution discharge. This has already been determined to be oxygen delignification. Second, it must determine what level of pollutants are discharged by plants using this technology. The Commission decided this was 1.5 kg AOX/tp.⁵

Therefore, the only *legally* relevant evidence that could cause reconsideration is that which shows (1) that some other technology does *better* than oxygen delignification, (2) that oxygen delignification *cannot* achieve a discharge level as good as 1.5 kg AOX/tp, or (3) that oxygen delignification is too expensive to be BAT. The mills cannot achieve relief from limits calculated on the basis of the effectiveness of oxygen delignification by talking and offering evidence only on a different, weaker technology.

But the mills have not petitioned for reconsideration of the AOX limit on any of the bases involving oxygen delignification. (1) The mills offer to present to the Commission the level of AOX the mills will discharge after installing chlorine dioxide

⁵ See 40 CFR 125.3. The Oregon Department of Environmental Quality determined, and this Commission affirmed, that oxygen delignification is BAT for the mills' discharge of AOX, and that mills using this technology discharge 1.5 kg AOX/tp. Final Order at 18 (April 16, 1992). <u>Although the limit is based on a specific technology, the polluter may achieve the limit by any means available.</u>

substitution.⁶ Their aim of weakening the AOX limit is an acknowledgment that chlorine dioxide substitution does not do better than oxygen delignification. (If it did, this Commission would have to tighten the limit to reflect the lower discharges achieved by chlorine dioxide substitution.) If, by using chlorine dioxide substitution, the faills do not achieve the 1.5 kg AOX/tp, then such evidence is irrelevant because it does not show that chlorine dioxide substitution does better than oxygen delignification. (2) Nor does any evidence planned to be submitted by the mills show that plants using oxygen delignification discharge more than 1.5 kg AOX/tp. Such evidence would indeed be relevant - but the mills have no such evidence, because it does not exist. Oxygen delignification can do far better than 1.5 AOX. Indeed, it can achieve 0.2 to 0.3 AOX according to numerous documents. (3) The mills also have not submitted one piece of evidence that oxygen delignification is economically unachievable. While the mills may expect to bring in such arguments through the back door, in non-record allusions, the Commission's actions must be based on record evidence. If such evidence was formally admitted, it would certainly require a formal contested case proceeding presided by a newly designated hearing officer.

There is indeed evidence relevant to the validity of the AOX limit, but not that which the mills would like this Commission to hear. If reconsideration is not withdrawn, NCAP/CRU will show — both to the new leaders of EPA and in any relevant judicial

⁶ Reconsideration is being delayed until sometime between July 1, 1993, and November 30, 1993. "The Commission delayed the date for . . . reconsideration to allow time for the mills to complete equipment installations . . . [and] to secure . . . data on AOX performance levels that can be achieved with chlorine dioxide substitution." Letter dated 8/18/92 from William Wessinger, Chair, Oregon Environmental Quality Commission, to James River, Inc., and Boise Cascade, Corp.

and administrative forums, that new and significant information is available that *chlorinefree* bleaching is economically achievable. Such technology is BAT. More and more mills in the United States, and others in Canada and Europe, are switching to chlorinefree technology and discharging no AOX. We invite the Commission's particular attention to the brief reports in Appendix C. The AOX limit in the mills' NPDES permits should be zero. And we must be granted the opportunity, here or in other forums, to show this level of BAT.

IV. CONCLUSION

This Commission should withdraw reconsideration to comply with the CWA, clear up the confusion and uncertainty that the mills have caused, ensure the finality of the TCDD and AOX limits, and obviate the need for moving to alternative forums. This Commission should also withdraw reconsideration because the mills have no relevant evidence to offer. Withdrawing reconsideration will allow everyone to move forward to the goal of making the Columbia River safer, cleaner, and healthier for all.

cc: Governor Barbara Roberts EPA Region IX Transition Team of the President Elect Senator Dick Springer Senator Albert Gore

The undersigned hereby certifies that he is an intern of the Western Environmental Law Clinic and is a person of such age and discretion as to be competent to serve papers.

That on December 2, 1992, he served NCAP/CRU'S PETITION FOR WITHDRAWAL OF RECONSIDERATION to:

William W. Wessinger, Chair Oregon EQC 121 S.W. Salmon, Suite 1100 Portland, OR 97204

Emery N. Castle, Vice Chair Oregon EQC Oregon State University 307 Ballard Hall Corvallis, OR 97331

Carol W. Whipple, Member Oregon EQC 21755 Highway 138 West Elkton, OR 97436

Henry Lorenzon, Member Oregon EQC Corey, Buler, Rew, et al. P.O. Box 218 Pendleton, OR 97801

Linda McMahan, Member Oregon EQC Berry Botanic Garden 11505 S.W. Summerville Avenue Portland, OR 97219

Fred Hansen, Director Oregon DEQ 811 S.W. Sixth Ave., 6th Floor

The Honorable Arno H. Denecke 3890 Dakota Road S.E. Salem, OR 97302

John W. Gould Richard H. Williams Lane Powell Spears Lubersky 520 S.W. Yamhill Street, #800 Portland, OR 97204

Larry Edelman Assistant Attorney General Oregon Department of Justice 1515 S.W. Fifth Avenue, #410 Portland, OR 97201 Lawrence Knudson Assistant Attorney General Oregon Department of Justice 1515 S.W. Fifth Avenue, #410 Portland, OR 97201

Peter M. Linden City Attorney City of St. Helens P.O. Box 278 St. Helens, OR 97051

Lydia Taylor Oregon DEQ 811 S.W. Sixth Avenue Portland, OR 97204

Jay T. Waldron David F. Bartz, Jr. Schwabe, Williamson & Wyatt 1600-1950 Pacwest Center 1211 S.W. Fifth Avenue Portland, OR 97204

Linda Williams 1744 N.E. Clackamas Street Portland, OR 97232

Michael Campbell Stoel, Rives, et al. 900 S.W. 5th Ave., #2300 Portland, OR 97204

Richard Baxendale 506 National Building 1008 Western Ave. Seattle, WA 98104

Brian J. King Boise Cascade Corporation One Jefferson Square P.O. Box 50 Boise 1/Idaho 83728

11.7 In 1-110

Curtis Fisher

Attachments to this petition

are available from DEQ upon request.

Before the Environmental Quality Commission of the State of Oregon

In the Matter of National Pollutant)
Discharge Elimination System Waste)
Discharge Permit No. 100715 issued to)
the City of St. Helens on November 14,)
1990,)
)
and)
)
National Pollutant Discharge Elimination)
System Waste Discharge Permit No.)
100716, issued to James River II, Inc.)
on November 14, 1990.)

NOTICE OF CONSIDERATION of

PETITION FOR WITHDRAWAL OF RECONSIDERATION

Notice

- 1. On January 29, 1993, the Environmental Quality Commission, during the course of its regularly scheduled meeting, will consider a **Petition for Withdrawal of Reconsideration** filed by letter dated December 2, 1992 on behalf of Northwest Coalition for Alternatives to Pesticides and Columbia River United.
- 2. The Commission meeting is scheduled to begin at 8:30 a.m. on January 29, 1993. This item is scheduled as the third item on the meeting agenda. Therefore, any parties in the proceeding wishing to be present when the Commission considers this matter should be present when the meeting begins.
- 3. The Commission will not receive oral testimony on this issue at the meeting. Written comments may be considered if they are received by each Commission member and the parties by no later than 5:00 p.m. on Thursday, January 21, 1993.
- 4. As part of its deliberations, the Commission may ask the Department or other parties to respond to questions. The Commission may make a determination on this matter at the meeting, or could elect to defer a decision until a later date.

Dated this <u>12th</u> day of January, 1993.

On behalf of the Commission

JUDI

Fred Hansen, Director Department of Environmental Quality

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION OF THE STATE OF OREGON

In the Matter of)	
Columbia River United's)	NOTICE OF CONSIDERATION
Petition for Rulemaking)	

- 1. On January 21, 1993, Columbia River United filed a petition for rulemaking with the Environmental Quality Commission. The petition seeks adoption of a rule which would require every pulp mill to (1) meet a monthly average discharge limit of 1.5 kg AOX/ADMT of pulp produced as soon as feasible but no later than June 1, 1993, and (2) eliminate the discharge of organochlorines as soon as feasible but not later than January 31, 1996 through the use of totally chlorine-free technology.
- 2. The Environmental Quality Commission will consider the petition at its next regularly scheduled meeting on January 29, 1993. Persons wishing to be present when the matter is considered should be there when the meeting begins at 8:30 a.m. The meeting will be held in Conference Room 3a at the Department of Environmental Quality offices at 811 S. W. 6th Avenue in Portland, Oregon.
- 3. Consideration will be pursuant to the Attorney General's Uniform Rule OAR 137-01-070 regarding a Petition to Promulgate a Rule. This rule requires the Commission to either deny the petition or initiate rulemaking within 30 days of receipt of the petition.
- 4. Oral presentations will not be received.

DATED this 22 day of January, 1993.

On behalf of the Commission

Fred Hansen, Director Department of Environmental Quality

Certificate of Mailing

I certify that I mailed the attached NOTICE OF CONSIDERATION to each of the following persons on January 22, 1993:

William W. Wessinger, Chair Environmental Quality Commission 121 S. W. Salmon, Suite 1100 Portland, OR 97204

Emery N, Castle, Vice Chair Environmental Quality Commission Oregon State University 307 Ballard Hall Corvallis, OR 97331

Henry Lorenzen, Member Environmental Quality Commission Corey, Byler, Rew, Lorenzen, & Hojem P.O. Box 218 Pendleton, OR 97801

Carol A. Whipple, Member Environmental Quality Commission 21755 Hwy. 138 West Elkton, OR 97436

Linda R. McMahan, Member Environmental Quality Commission The Berry Botanic Garden 11505 S. W. Summerville Avenue Portland, OR 97219

Mr. Michael D. McIntyre Associate General Counsel Boise Cascade Corporation One Jefferson Square P.O. Box 50 Boise, Idaho 83728-0001 Michael R. Campbell Stoel Rives Boley Jones & Grey 900 S. W. Fifth Avenue, # 2300 Portland, Oregon 97204

The Honorable Arno H. Denecke 3890 Dakota Road, S. E. Salem, Oregon 97032

Larry Edelman Assistant Attorney General Oregon Department of Justice 1515 S. W. Fifth Avenue, Suite 410 Portland, Oregon 97201

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Peter M. Linden City Attorney City of St. Helens P.O. Box 278 St. Helens, Oregon 97051

Certificate of Mailing

Page 1

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Linda Williams 1744 N. E. Clackamas Street Portland, Oregon 97232

John Bonine Curtis Fisher Western Environmental Law Clinic Law Center University of Oregon Eugene, Oregon 97403

William C. Carpenter Sorenson Law Office Lane Building Suite 303 P.O. Box 10836 Eugene, Oregon 97440 Columbia River Inter-Tribal Fish Commission 975 S. E. Sandy Blvd. Suite 202 Portland, Oregon 97214

Oregon Trout 6261 S. W. 47th Place Portland, Oregon 97721

Oregon Salmon Commission 13 S. W. 2nd Street, Suite C P.O. Box 1033 Newport, Oregon 97365

Oregon Rivers Council P.O. Box 309 Eugene, Oregon 97440

Harold L. Sawyer Inter/Intra Program Coordinator Department of Environmental Quality

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION OF THE STATE OF OREGON

In the Matter of Columbia River United's Petition for Rulemaking Before the Oregon Environmental Quality Commission

PETITION FOR RULEMAKING

... Jakat Kad

January 19, 1993

This Petition Is Printed on CHLORINE-FREE Bleached Paper

1. Pursuant to ORS 183.390 and the Attorney General's Uniform and Model Rule 137-01-070, Columbia River United ("CRU"), P.O. Box 667 Bingen, Washington 98605, petitions the Oregon Environmental Quality Commission ("Commission") to adopt a new rule as authorized by ORS 468.020(1). The proposed rule will prohibit the discharge of organochlorines by Oregon pulp mills as soon as feasible but no later than January 31, 1996. The text of the proposed rule is set out at the end of this petition.

2. New and significant information is available that totally chlorine-free technology is in use in this country and other nations. Pursuant to OAR 137-01-070, CRU submits the following reasons for the adoption of the rule:

A. Pulp & Paper International reports that <u>as of March</u> <u>1992, at least eight mills were producing softwood kraft pulp</u> <u>totally chlorine-free</u>. The trade journal stated:

Chlorine-bleached pulp is in fact carrying a penalty in some markets which will encourage an even faster shift in the future into new bleaching techniques by pulp producers.

See Appendix A. Further, at least ten other mills are actively considering adding chlorine-free technology to their operations.

B. In September 1992, Louisiana Pacific Corporation voluntarily decided to <u>eliminate all chlorine</u> uses in its Samoa, California kraft pulp bleaching plant. Louisiana Pacific decided:

that it made more economic sense to simply not use chlorine, since without it the biological wastes in the water could be incinerated along with other products from the process.

See Appendix B.

C. One month following the Louisiana Pacific decision, the Union Camp Corporation began operation of a chlorine-free pulp mill in Franklin, Va. "Union Camp's new process doesn't compromise the brightness or strength of its paper ... While the initial capital costs are somewhat higher than constructing a traditional bleach plant, <u>operating costs are substantially</u> <u>lower</u>." See Appendix C.

3. The Clean Water Act requires that permit limitations be based on "the best available technology economically achievable" (BAT).¹ Section 301(b)(2)(F). CRU provides new and significant information that BAT is totally chlorine-free for kraft bleach pulp mills. Therefore, the Commission must adopt this rule to comply with the Clean Water Act and to protect the integrity of Oregon's waters and human health.

4. The proposed rule provides:

Every pulp mill shall:

(a) Meet a monthly average discharge limit of 1.5 kg $AOX/ADMT^2$ of pulp produced as soon as feasible but no later than June 1, 1993; and

(b) Eliminate the discharge of organochlorines as soon as feasible but not later than January 31, 1996 through the use of totally chlorine-free technology.

5. The following parties will likely take interest in this proposed rule:

Boise Cascade Corporation c/o Michael R. Campbell Stoel, Rives, Boley, et al 900 S.W. Fifth Avenue, Suite 2300 Portland, Oregon 97204

¹ <u>Tanners' Council of America, Inc v. Train</u>, 540 F.2d 1188, 1195 (4th Cir. 1976) (EPA "may look to the best performer in the industry and even assess technologies that have not been applied as long as the record demonstrates that there is a reasonable basis to believe that the technology will be available..."). <u>N.R.D.C v. E.P.A.</u>, 822 F.2d 104, 115 (D.C. Cir 1987) (following the holding in <u>Tanners' Council of America</u>).

² A limit on the discharge of organochlorine compounds in units of kilograms of adsorbable organic halogens (AOX) per air dried metric tons (ADMT) of pulp produced.

PETITION FOR RULEMAKING - 2

James River II, Inc. c/o John Wiley Gould Lane, Powell, Spears & Lubersky 520 S.W. Yamhill Street, Suite 800 Portland, Oregon 97204-1383

Pope & Talbot Corporation c/o Jay T. Waldron Schwabe, Williamson & Wyatt 1211 S.W. Fifth Avenue Portland, Oregon 97204

Columbia River Inter-Tribal Fish Commission 975 S.E. Sandy Blvd. Suite 202 Portland, Oregon 97214

Oregon Trout 6261 S.W. 47th Place Portland, Oregon 97721

Oregon Salmon Commission 13 S.W. 2nd Street, Suite C P.O. Box 1033 Newport, Oregon 97365

Oregon Rivers Council P.O. Box 309 Eugene, Oregon 97440

and other groups concerned with fish, wildlife, human health and the environment.

Respectfully submitted, CURTIS FISHER

Legal Intern for Columbia River United

Dated this 19th day of January, 1993.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that he is an intern of the Western Environmental Law Clinic and is a person of such age and discretion as to be competent to serve papers.

That on January 19, 1993, he served CRU'S PETITION FOR RULEMAKING to:

William W. Wessinger Chair, Oregon EQC 121 S.W. Salmon, #1100 Portland, OR 97204

Emery N. Castle Vice Chair Oregon EQC Oregon State University 307 Ballard Hall Corvallis, OR 97331

Carol W. Whipple Member, Oregon EQC 21755 Highway 138 West Elkton, OR 97436

Henry Lorenzen Member, Oregon EQC Corey, Byler, et al. P.O. Box 218 Pendleton, OR 97801

Linda McMahan Member, Oregon EQC The Berry Botanic Garden 11505 S.W. Summerville Portland, OR 97219

Fred Hansen, Director Oregon DEQ 811 S.W. Sixth Av., 6 Fl. Portland, OR 97204 Hon. Arno H. Denecke 3890 Dakota Road S.E. Salem, OR 97302

John W. Gould Lane, Powell, et al. 520 S.W. Yamhill #800 Portland, OR 97204

Larry Edelman Asst. Attorney General Oregon Dept. of Justice 1515 S.W. Fifth, #410 Portland, OR 97201

Michael Huston Asst. Attorney General Oregon Dept. of Justice 1515 S.W. Fifth, #410 Portland, OR 97201

Peter M. Linden City Attorney City of St. Helens P.O. Box 278 St. Helens, OR 97051

Jay T. Waldron Schwabe, Williamson 1211 S.W. Fifth Avenue Portland, OR 97204 Michael Campbell Stoel, Rives, et al. 900 S.W. 5th, #2300 Portland, OR 97204

Richard Baxendale 1008 Western Av., #507 Seattle, WA 98104

Brian J. King Boise Cascade Corp. One Jefferson Square P.O. Box 50 Boise, Idaho 83728

Columbia River Inter-Tribal Fish Commission 975 S.E. Sandy, #202 Portland, OR 97214

Oregon Trout 6261 SW 47th Place Portland, OR 97721

Oregon Rivers Council P.O. Box 309 Eugene, OR 97440

JRTIS FISHER

APPENDIX A

Market pulp producers are moving fast to supply pulps bleached without chlorine compounds. John Pearson reports on which companies make these grades, where and in what quantities.

More tonnage set to reach the markets

IGH-VOLUME, capital-intensive industries like pulp and paper are not known for their rapid responses to market demand. Yet the market pulp industry in 1992 is reacting fast to the new demand for chlorine-free pulps.

To find out how fast the development is taking place, PPI has conducted a survey of who makes chlorine-free pulps for the market, where and in what quantities. We telefaxed the companies listed in PPI's Market Pulp Survey for details of their capabilities. Before presenting the results, it is worth explaining the nomenclature used here:

• Totally-chlorine-free, or TCF, pulp is bleached without the use of any chlorine compounds whatsoever.

• Elementally-chlorine-free, or ECF, pulp is bleached without the use of elemental chlorine - Cl₂. But often other chlorine compounds, most noticeably chlorine dioxide, are used in the bleachery.

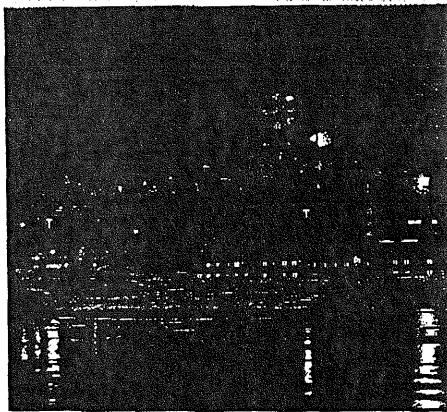
What is the driving force?

The environmental movement in Europe is at the roct of the chlorine-free pulp business. Particularly in Germany, environmentalists have claimed that chlorine compounds formed in the bleachery and expelled with the mill effluent could be harmful to human health. Although there is no evidence to substantiate this viewpoint, the industry has found itself on the defensive, and paper producers riding the environmental tide have consequently been seeking suppliers of chlorine-free market pulp grades.

The issue came to a head when the environmental group Greenpeace published a fake edition of the news magazine Der Spiegel, called Das Plagiat, on lightweight-coated paper made from chlorine-free pulps.

Price effect gives impetus

A price premium opening up for TCF market pulp has stimulated more pulp producers to invest in low- or zerochlorine. During late-February, ECF



Kornäs' Gävle mill in Sweden was a pioneer in ECF and TCF pulping.

Company and mill name	Location :	Type of pulp made	ECF Bleeching process) Market cap (tons/yr)
Cascades Port Cartier	Port Cartier, Que, Canada	CTMP	Peroxide	200.000
Durango	Durango, Mexico	CTMP	Peroxide	70,000
Fibreco	Taylor, BC, Canada	CTMP	Peroxide	180,000
Louisiana-Pacific	Chelwynd, BC, Canada	CTMP	Peroxide	175.000
Metsä-Serla	Lielahti, Finland	CTMP	Peroxide	100.000
Millar Western	Whitecourt, AL, Canada	Sttwd + aspen CTMF	Peroxide	475.000
	Meadow Lake, Sask, Can.	Sitwd + aspen CTMF		(total 2 mills)
Norské Skog	Folla, Norway	CTMP	Peroxida	85.000
Quesnel River Pulp	Quesnel, BC, Canada	CTMP	Peroxide	150.000
Rottneros Rockhammar	Frövi, Sweden	CTMP	Peroxide	55.000
Rottneros	Rottnaros, Sweden	СТМР .	Peroxide	90.000
Slave Lake Pulo Corp.	Slave Lake, AL, Canada	Aspan CTMP	Peroxide	110.000
Stone-Consolidated	Bathurst, NB, Canada	CTMP	Peroxide	90,000
Stora Cell	Skoohall, Sweden	CTMP	Peroxide	65,000
Temcell	Temiscaning, Que, Canada	CTMP	Peroxide	220,000
Vapoeryd Cell	Vaggeryd, Sweden	CTMP	Peroxide	75,000
Winstone Pulp	Ohakune, New Zealand	CTMP	Peroxida	120,000

pulp was selling for around \$20/ton CIF more than pulp bleached with chlorine gas, at \$540/ton. Observers comment that from being a premium for the ECF grade, this price is now becoming the norm. Chlorine-bleached pulp is in fe carrying a penalty in some marke which will encourage an even fast shift in the future into new bleachi techniques by pulp makers.

COMPANIES PRODUCING TOTALLY-CHLORINE-FREE CHEMICAL MARKET PULP

Company and mill name	Location	Type of pulp made		eady in operation (or startup date)	Market cepacity (tons/yr)
Aepa Bruk	Aspa Bruk, Sweden	Sttwd kraft	•	Yes	115,000
Athowite Pulp	Athoville, NB, Canada	Sulfite	Oxygen + peroxide	Yes	120,000
Borregaard Industries	Sarpsborg, Norway	Sitwd sulfite (dissolving + paper grade)	Oxygen + peroxide	Yes	160,000
Celbi	Figueira da Foz, Portugal	Eucalyptus kraft	• · · ·	1993-94	Note
Cellulose Attisholz	Luterbach, Switzerland	Sitwd sullite	EOP. EOP-P. EOP-P-P	Yes	49,000
Condiose Austion	Enterodent, Ontecontailo	Howd sulfite	EOP, EOP-P, EOP-P-P	Yes	23,000
Ence	Pontevedra, Spain	Eucalyptus kraft	4	Yes	170,000
Holmens Bruk	Wargons Bruk, Sweden	Sullite	Peroxida	Yes	15,000
Hoitzmann Papier	Maxau, Germany	Sulfite	Peroxide	Yes	40,000
Howe Sound	Howe Sound, BC, Canada	Sitwd	· -· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	Mid 1992	Note
Korsnäs	Gävis, Sweden	Kraft fluff pulp	Oxygen + peroxide	Yes	Note
Metsä-Botnia	Kaskinen, Finland	Sftwd + hdwd kraft	MCC cook-O-P-enzyme blea	ich Yes	Note
	Kemi, Finland	Stiwd + howd kraft	MCC cook-O-P-enzyme ble:	ich Yes	100,000
Metsä-Sellu	Äänekoski. Finland	Sttwd + hdwd kraft	-	1993	-
MoDo Paper	Domsjö, Sweden	Sulfite	Oxygen + peroxide	Yes	240,000
Ncb	Valivik, Sweden	Stiwd kraft	Oxygen + peroxide	1992-93	Note
Norske Skog	Tofte, Norway	Sitwd + eucalyptus kraft	Oxygen + peroxide (Lignox)	Early 1992	385,000
SCA Witsta-Östrand	Timrä, Sweden	Hdwd + sftwd kraft	Oxygen + peroxide (Lignox)	Yes	Note
Schwäbische Zellstoff	Ehingen, Germany	Howd sulfite	Oxygen + peroxide (EOP-P-	P) Yes	40,000
Södra Cell	Mörrums Bruk, Sweden	Sttwd + Hdwd kraft	Oxygen + peroxide	Yes	1,080,000
	Mönstarås, Sweden				(total at
	Värö Bruk, Sweden				three mills)
Stora Cell	Skutskär, Sweden	Kraft fluff pulo	O-Eop	Yes	330,000
	Norrsundets Bruks, Sweden	Sitwd kraft	O-EOP	Yes	275,000
Stora Forest Ind.	Pt Hawkesbury, NS, Canada	Sullite	Peroxide (XP)	Yes	Note
Stora Papyrus	Nymölla, Sweden	Sttwd + hdwd suffite	Oxygen + peroxide	Yes	40,000
Sunila	Sunita, Finland	Sitwo kraft	Oxygen + enzymes + perox	de Yes	100,000
	market will be varied to meet de				

MARKET PULP COMPANIES WITH TCF PULP GRADES	STUDYING OR CONDUCTING TRIALS
Alto Parana	Argentina
Aracruz Celulose	Espirito Santo, Brazil
Arauco y Constitución	Arauco + Constitución, Chile
MacMillan-Bloedel	Harmac Div., BC, Canada
Malette Kraft Pulp	Smooth Rock Falls, Ont., Canada
Miramichi Pulp & Paper	Newcastle, NB, Canada
MoDo Paper	Husum, Sweden
Soporcei	Lavos, Portugal
Suzano	Suzano, Brazil
Veltsiluoto	Oulu, Finland

Your invitation to join the list

Obtaining information for a survey such as this is not easy, and, despite our best endeavors, there may be some mills which are unintentionally omitted.

PPI therefore extends an invitation to any pulp producer making elementally-chlorine-free (ECF) and totally-chlorinefree (TCF) grades but not listed here to get in contact with us. We shall make sure that your mill is brought to the attention of PPI readers in future editions. This survey will also be updated on an annual basis in PPI's March edition.

Kraft producers face the cost

While TCF processes using peroxide and oxygen extraction for sulfite pulps have been available for soveral years, kraft pulp producers have had to rethink their processes, first substituting chlorine dioxide for chlorine in ECF bleaching, and then investing in TCF processes.

The latter include peroxide bleaching in acid and basic conditions, plus multiplestage oxygen and enzyme bleaching processes. In the near future, new processes involving ozone bleaching will probably join the list.

In all cases, the pulp producers face investment costs and often higher operating costs than for pulps bleached in the traditional way. This extra cost will eventually result in a permanent price differential for ECF and TCF pulps on the markets. It will also, in the longer term, result in higher prices for paper. The ultimate end-user's environmental credentials will then be put to the test. Most pulp producers are biding their time to see how the markets develop. At present, it is mainly the Nordic nations with their strong record of environmental innovation who are forging ahead with the new processes.

Brightness is the problem

S. AND A

Achieving normal levels of brightness (90% ISO) is not yet possible with TCF processes, particularly on softwood pulps. (However, PPI believes that one major pulp producer is on the point of announcing a breakthrough in this field.)

Typically, TCF softwood pulps are

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being made at around 80% ISO brightness, with hardwood pulps at 85%. Again, the end-consumer of paper products is likely to have to accept lower brightness as the price of environmental friendliness.

Don't forget the mechanicals

It is important in discussing chlorinefree pulps to remember that mechanical market pulps are peroxide bleached. For good measure, PPI has therefore also included a list of the world's market chemithermomechanical pulp (CTMP) suppliers, plus some market stone groundwood producers.

The increasing availability of these pulps often at relatively high brightnesses of 80% ISO, could be extremely important, especially in "woodfree" office papers.

3 COMPANIES PRODUCING ELEMENTALLY-CHLORINE-FREE CHEMICAL MARKET PULP

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Company and mill name	Location			ready in operation (or startup date)	capacity (tons/yr)
		Howd kraft	<u>.</u>	Yes	210,000
	Alizay, France		O-D-Eo-D-E-D	Yes	400,000
Alabama River Pulp	Claiborne, AL, USA	QIAID MAR	D-E-D	Yes All	40,000
Alto Parana	Argentina	Citure in my		Yes	Note
Aracruz Calulose	Espirito Santo, Brazil		O-D-Eo-D-E-D		
Borregaard Industries	Sarpsborg, Norway		H-P-D start starts	rease Yes	160,000
· · · · · · · · · · · · · · · · · · ·		. International in here a sector	<u>같는 11 년 11 년 1</u> 년 1 년 1 년 1 년 1 년 1 년 1 년		
Canadian Pacific FP	Gold River, BC, Canada	Sitwo kraft	D-Eop-D	Yes	240,000
Danaciter : don't : .	Dryden, Ont., Canada	Sttwd kraft	DW-Eo-D-E-D	Yes .	100,000e
	Thunder Bay, Ont., Canada	Sitwd + hdwd kraft	DW-Eo-D-E-D, D-Eo-D-E-D		200,000
	La Tuque, Que., Canada	Sttwd kraft	D-E-D	Yes	150,000
Cariboo Pulp & Paper	Quesnel, BC, Canada	Sttwd kraft	• •	Yes	
	St. Gaudens, France	stiwd, hdwd kraft	• •	Yes	320,000
CDRA	Figueira da Foz, Portugal	Eucalyptus kraft	D-Eop-D-Ep-D	Yes	Note
Cebi	Castlegar, BC, Canada	Sftwd kraft	D-EoPD-E-D	Yes	22,000
Celgar Pulp		Howd kraft		Yes	180,000
Celulosas de Asturias	Armental, Spain	Sitwd sullite	EOP-D-Eo-D-E-D or EOP-I		52,000
Cellulose Attishoiz	Luterbach, Switzerland		EOP-D-Eo-D-E-D or EOP-I	D-P Yes	13,000
				Yes	140,000
Cell. du Pin Tartas Celulosa	Tartas, France	Sttwd sulfate	• • • • • • • • • •	163	
	Arauco, Chile	Sftwo kraft	D-Eop-D-E-D	Yes	350,000
Arauco y Constitución	Constancia, Portugal	Suffte		Yes	120,000
Coluiose do Calma	All superior Bartuchi	Odinta			(at two mills)
0. 	Albergania, Portugal	Sitwd + hclwd kraft	D-Eop-D-E-D	Late 1992	240,000
CMPC	Laja, Chile	• · · · · • · · · · · · · · · · · · · ·		Yes	360,000
Cenibra	Beto Oriente, Brazil	Eucalyptus kraft		Mill trials only	000,000
Daishowa Canada	Peace River, Alberta	Sftwd + howd kraft	O-D-Eo-D-D		47E 000
Ence	Pontevedra, Spain	Eucalyptus kraft	•	Yes	175,000
Ence	Huelva, Spain	Eucalyptus kraft		Yes	225,000
Howe Sound	Howe Sound, BC, Canada	Sitwo kraft	D-EO-DN-D	Yes	Note
Iggesund Paperboard	lggesund, Sweden	Sitwd kraft	O-D-Eop-D-D	Yes	60,000
	lggesund, Sweden	Howo kraft	D-Eop-D-Eo-D	Yes	30,000
James River-Marathon	Marathon, OnL, Canada	Sitwd kraft	D-Eor-D-E-D	Yes	175,000
Kaukas	Kaukas, Finland	Hdwd kraft	D-Eo-D-Ep-D	Yes	50,000
Korsnäs	Găvie, Sweden	Kraft fluff pulp	D-Eo-D-D	Yes	120,000
Levicam-Murztaler	Gratkom, Austria	Sulfite puip	-	Yes	175,000
MacMillan-Bloedel	Harmac Div., BC, Canada	Kraft	D-Eo-D-E-D 🚽	Yes	365,000
Malette Kraft Pulp	Smooth Rock Falls, Canada	Sitwd kraft	D-Eo-D-Ep-D	Yes	120,000
Metsä-Botnia	Kaskinen, Finland	Sitwd + howd kraft	D-Eor-D-E-D	Yes	420,000
nie ba-oeana	Kemi, Finland	Sttwd + howd kraft	D-Eop-D-D	Yes	350,000
Metsä-Sellu	Aănekoski, Finland	Sftwd kraft	D-Eop-D-Ep-D	Yes	250,000
melaa-sena	Addiencesh, Finding	Howd kraft	0-Eop-D-Ep-D	Yes	
Administration of Damas	Marupantia ND Canada				200,000
	r Newcastle, NB, Canada	Stiwd kraft	Eop-D-Ep-D	Yes	105.000
MoDo Paper	Husum, Sweden	Sitwd kraft		Yes	165,000
A lab.	Husum, Sweden	Howd kraft	0-0-E-0 E-0	Yes	120.000
Nob	Vallvik, Sweden	Sitwd kraft	• · · · · · · · · · · · · · · · · · · ·	Yes	200,000
Norske Skog	Tofts, Norway	Sitwo + eucalyptus kraft	0-D-Eo-P-D-D	Yes	385,000
Northwood Pulp	Prince George, BC, Canada	Sitwd kraft	D-EoPD-EP-D	Yes	510,000
Pondercel	Chihuahua, Mexico	Sitwo kraft	D-Eop-D-P	Yes	170,000
Portucel	Cacia, Portugal	Eucalyptus kraft	D-Eo-D-EP-D	Yes	180,000
Portucel	Sétubal, Portugal	Eucalyptus kraft	•	Yes	360,000
Salccor	South Africa	Sulfite dissolving pulp	D-Eo-D-H	1994	525,000
SCA Wifsta-Östrand	Timrä, Sweden	Howd + stiwd kraft	O-D-E-D E-D	Yes	320,000
Scott Maritimes	New Glasgow, NS, Canada	80% sitwd/20% hdwd blend		Yes	
Södra Cell	Mörrums Bruk, Sweden	Sitwd + hdwd kraft	D-Eor-D-E-D	Yes	250,000
	Mönsterås, Sweden			163	950,000 (total at
	Värö Bruk, Sweden		· · ·		
Soporcel	Lavos, Portugal	Eucalyptus kraft	D-Eo-D-E>-D	Yes	ម៉ាមេទ ការ៉េន)
Stora Cell	Skutskär, Sweden	Kraft fluff pulp	O-D-Eop-D-Ep-D		250,000
	Norrsundets Bruks, Sweden	Sftwd kraft	O-D-Eop-D-Ep-D	Yes	130,000
•	Gruvon, Sweden	Sitwd kraft	0-D-Eop-D-Ep-D	Yes	275,000
Stora Forest Ind.	Pt Hawkesbury, NS, Canada			Yes	80,000
Stora Papyrus	Nymölla, Sweden	Sitwd + hdwd sutfite	D-E-D-E-D	Yes	Note
Stracel	Strasbourg, France		O+P+E-D-O+P+E-D-EP-D	Yes	50,000
Sunlia		Sulfite	*	Yes	140,000
	Sunita, Finland	Sttwd kraft	О-М/D-E-P-D-E-D О-М/D-E-₽-D	Yes	300,000
Veltslluoto	Kemi, Finland	Sftwd + hdwd kraft		Being implemented	40.000
	Kemijarvi, Finland	Sttwd + hdwd kraft		Bould rub partiel #60	40,000
	Oulu, Finland	Sitwd + howd kraft	0-D-Eo-D-E-D	Being implemented Yes	210,000
Wisaforest (Kymmene)	Jakobstad, Finland	Stiwd + howd kraft	· ·	res Yes	180,000
M - Manoy chamical F		and a second second second		195	140,000

M = Monox chemical. Dn = Neutral conditions. Note: Capacity for the market will be varied to meet demand.

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APPENDIX B

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45TH STORY of Level 1 printed in FULL format.

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Environment Week

September 17, 1992

SECTION: No. 36, Vol. 5; ISSN: 1041-8105

LENGTH: 994 words

HEADLINE: Louisiana Pacific Will Build Nation's First Bleach-Free Pulp Plant

BODY:

Louisiana Pacific Corp., in a precedent setting settlement with the Environmental Protection Agency and the Surfrider Foundation, agreed to eliminate all chlorine uses in its Kraft pulp bleaching plant at Samoa, California, making it the first chlorine-free pulp plant in the U.S. and the second in the world.

By 1995, the company plans to have on-line a combined oxygen dilignification, hydrogen peroxide and sodium bisulfite treatment to bleach pulp.

The action was immediately hailed by environmentalists as a key breakthrough in the effort to convert the U.S. paper industry to non-chlorine technologies. "The agreement is quite significant," said Keith Romig, environmental officer w() the United Paperworkers International Union in Nashville, the major proponent of eliminating chlorine from paper plant operations to protect worker safety.

Currently, Romig says, the most aggressive action to back out chlorine in the U.S. is an ozone-based bleaching process now being installed at a Union Camp plant in isle of Wright, Virginia. While Union Camp will eliminate the use of elemental chlorine and therefore virtually all creation of dioxin as a by-product, its process still has a chlorine dioxide finishing stage to bring paper quality up to normal industry standards.

Louisiana Pacific immediately acknowledged that paper made from the "Absolutely Chlorine Free" (ACF) pulp will not have the high brightness and strength values needed for some commercial products. But the company hopes to develop "environmental" markets for ACF products, which are similar to the existing markets for recycled paper and plastics products.

LP notes there is already a movement among European publishers to use chlorine free paper. Earlier this year, Time Inc. responded to a Greenpeace letter writing campaign by pledging to use chlorine free paper for its magazines when the paper became commercially available. LP officials say they are seeking information about the Time pledge.

Greenpeace officials, however, say they now understand that Time has withdrawn its chlorine free pledge. In protest, the group plans to call for a by cott of Time starting in early October (See related story).

Mark Floegel, head of the Greenpeace Pulp and Paper campaign, said his group welcomed the Louisiana Pacific move. "This kind of commitment gives a



Services of Mead Data Central, Inc. APPENDIX B - 1

green light to the market and other producers," Floegel said. He added that he lieved several other paper companies were working on similar processes.

In a statement, Louisiana Pacific chairman Harry Merlo said: "We are about to produce a product, knowing full well that, at present, the market isn't there to support it. Our expectation is that in the interest of a cleaner environment consumers will accept paper products that are not quite as bright as they are accustomed to using."

Merlo added that the paper company hoped to "fine tune" its process so that the quality of its pulp "would not be far off" from chlorine bleached pulp.

Louisiana Pacific had already installed an oxygen-base delignification process at the 250,000 ton per year plant in 1989, which removes about 50 percent of the colored lignin from the pulp without use of chlorine. Similar systems have been installed at six other U.S. plants. It also began experiments with a chlorine-free second stage, but continued to use its existing chlorine-based process for its commercial pulp production.

Also in 1989, however, the Louisiana Pacific plant was hit with a lawsuit, filed in U.S. District Court in San Franc

isco, by EPA and the Surfriders Foundation, the latter representing West Coast surfing groups. The groups charged the wastewater discharged from the plant into the Pacific Ocean off Humboldt County contains toxics and threatened the health of both marine life and surfers.

In September, 1991, Louisiana Pacific reached a first settlement in the case which was already precedent setting because the company agreed to carry out toxicity studies using live organisms, and gear treatment technology to the results. The company also agreed to pay a \$2.9 million fine and extend its outfall pipe further into the ocean.

Based on that agreement, the company began studying ways to develop a new biological treatment unit to bring its wastewater up to the standards required under the consent decrees. It eventually decided that it made more economic sense to simply not use chlorine, since without it the biological wastes in the water could be incinerated along with other by-products from the process.

Therefore, under the new plan, it will simply not build a biological treatment plant and improve its boiler system to reduce odors and emissions. The boiler will meet the toughest air pollution rules imposed on any U.S. paper plant, the company said. The company will also install new equipment to steam strip methanol and turpentine from the pulp.

The new plan was accepted by EPA and Surfrider under a modification to the original settlement, submitted to the court Sept. 10. EPA officials said the plan was "an excellent example of pollution prevention," and urged other companies to adopt the same practices.

Louisiana-Pacific says it has already spent \$70 million to upgrade its plant * Samoa, including the cost of the oxygen delignification unit. Installing the .rther equipment to make the process totally chlorine-free will cost another \$10 million more, according to a spokesman.

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Services of Mead Data Central, Inc.

Samoa is Portland, Oregon-based, Louisiana Pacific's only pulp plant. The .pany sells pulp to papermakers, but does not make any paper itself. Q, Louisiana Pacific has already developed a plywood substitute called strand oriented board which uses small wood chips and does not require cutting down large old growth trees. The company said the new pulp process continues this effort to innovate to meet environmental objectives.

Author: PAUL KEMEZIS

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SUBJECT: Environment (EV)

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PTS-LOAD-DATE: 1992 Week 42



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APPENDIX C

2ND STORY of Level 2 printed in FULL format.

Copyright 1992 Chicago Tribune Company Chicago Tribune

October 18, 1992, Sunday, FINAL EDITION

SECTION: BUSINESS; Pg. 12; ZONE: N

LENGTH: 402 words

HEADLINE: New planc makes paper chlorine-free

BYLINE: Journal of Commerce.

DATELINE: WAYNE, N.J.

BODY:

Union Camp Corp., based here, has begun operating a chlorine-free pulp -bleaching plant at its 1,850 ton-a-day Franklin, Va., printing and writing paper mill.

The process employs patented state-of-the-art ozone technology to provide major, cost-effective environmental benefits. By using ozone and oxygen as its primary bleaching agents, instead of the usual chlorine, the Franklin plant's process dramatically reduces the amount of chlorinated organics produced, including dioxin and chloroform, Union Camp said.

"The most significant achievement of this new technology is our ability to recycle most of the bleach plant's waste water," said Wells Nutt, president of nion Camp Technology, the subsidiary responsible for Union Camp's proprietary pulp manufacturing technology. "This means we will discharge much less effluent than before," he said.

Union Camp's move is illustrative of a paper-processing industry effort to reduce chlorine use. In 1995, such use is expected to drop about 20 percent from 1990 levels, estimates Chem System Inc. of Tarrytown, N.Y., a consulting firm. In 1990, U.S. paper producers accounted for 14 percent of domestic chlorine consumption.

Union Camp's new process doesn't compromise the brightness or strength of its paper, the company said. Though initial capital costs are somewhat higher than constructing a traditional bleach plant, operating costs are substantially lower, Union Camp said.

The new plant is the major component in a \$114 million modernization of the Franklin mill's pulp processing system. The mill is about 50 miles southwest of Norfolk.

By recycling effluents, the process cuts by as much as 90 percent the oxygen consumed. Significantly, effluent color is reduced, and the total water required for the process is 45 to 95 percent less than conventional systems.

The process results from more than 10 years of Union Camp research and development on paper bleaching. Researchers tested the process' viability with a "hree-year pilot-plant program at the company's white paper mill in Eastover, C. Traditional pulp -bleaching plants employed by the white paper industry



Services of Mead Data Central. Inc. APPENDIX C - 1

are major contributors to mill effluent loads.

Union Camp will sell the proprietary process, for which 18 patents are issued or pending. It has formed a worldwide marketing alliance with Sunds Defibrator AB of Sweden, a leading maker of bleaching equipment.

TERMS: NEW JERSEY; TECHNOLOGY; PROFILE



Services of Mead Data Central, Inc. APPENDIX C - 2

Environmental Quality Commission

□ Rule Adoption Item

Action Item

□ Information Item

Title:

Proposed Temporary Amendments to Pollution Control Facilities Tax Credit Rule

Summary:

The Commission has announced its intent to amend the pollution control facilities tax credit rule. This announcement was made after the Commission determined that, for certain types of businesses, the existing tax credit rule does not adequately allow the Department and Commission to consider the portion of a facility cost properly allocable to pollution control as specified in ORS 468.190 and OAR 340-16-030.

In response to the Commission's announcement, the Department has developed a set of rule amendments that will change the return on investment and percent allocable evaluation procedures for applicants where it is determined that pollution control facilities are integral to the operation of the applicant's business. These amendments include the addition of appropriate definitions, and the addition of a new methodology for evaluating the return on investment and percent allocable to pollution control. The amendments have been drafted to apply to all tax credit applications received on or after February 1, 1993.

The Department is proposing that these amendments be adopted on a temporary basis pending adoption of permanent rule amendments through the appropriate rulemaking procedures. The permanent rule amendment process has been initiated and will be completed within the 180 days that temporary rules are effective.

Department Recommendation:

Adopt the proposed findings as presented in the staff report and the proposed temporary amendments to the pollution control facilities tax credit rule as presented in Attachment A to the staff report.

John Les	Michael Hours	Jul Hausen
Report Author	Division Administrator	Director

January 14, 1993

[†]A large print copy of this report is available upon request.

State of Oregon Department of Environmental Quality

Date: January 12, 1993

To: Environmental Quality Commission

From: Fred Hansen, Director

Subject: Agenda Item E, January 29, 1993 EQC Meeting

Proposed Temporary Amendments to Pollution Control Facilities Tax Credit Rule

Background

At the October 16, 1992 meeting, the Commission announced its intent to amend the Pollution Control Facilities Tax Credit Administrative Rule, OAR Chapter 340, Division 16. The Commission determined at this meeting that, for certain types of businesses, the existing rule is flawed in the methodology used to determine the facility return on investment (ROI) and percent allocable to pollution control. The Commission also announced that it intended for these rule amendments to apply as quickly as possible. This staff report and proposed temporary rule amendments address the Commission's directive.

A complete text of OAR 340-16-005 to 340-16-050 including the proposed amendments is included as Attachment A. Tables 1 and 2 used in evaluating the facility return on investment and percent allocable are also included in Attachment A. A discussion of the proposed amendments is included as Attachment B. Finally, the Department has prepared a Fiscal and Economic Impact Statement and this is included as Attachment C.

Issues to be Addressed by this Temporary Rule

Under the current provisions of ORS 468.190 and OAR 340-16-030, the Commission is required to consider five factors in determining the portion of facility costs properly allocable to pollution control. These five factors are:

- a) The extent to which the facility is used to recover and convert waste products into a salable and usable commodity.
- b) The estimated annual percent return on the investment in the facility.

[†]A large print copy of this report is available upon request.

- c) The alternate methods, equipment and costs for achieving the same pollution control objective.
- d) Any related savings or increases in costs which occur as a result of the installation of the facility.
- e) Any other factors relevant to establishing the portion of the actual cost of the facility properly allocable to pollution control.

Factor (b) is the primary mechanism the Department uses to determine the percent properly allocable to pollution control. Using this factor, the facility return on investment and percent allocable determinations are made based on the expected economic benefits (average annual cash flow) derived over the useful life of the facility.

In certain industries, pollution control facilities represent virtually the entire asset base of individual businesses. This makes it very difficult, and in many instances impossible, to separate the economic benefits that may result from construction or installation of pollution control facilities from the operations of the business as a whole. For example, some highly profitable businesses may not be able to generate income without the claimed pollution control facilities. In other industries, pollution control facilities may be installed in response to demand by third parties for these types of facilities and not necessarily as a direct result of environmental requirements. Because of the language in the existing rule, an applicant may claim that a narrowly defined facility has no direct income associated with it, and the Department is unable to consider the profitability of the entire business.

This temporary rule amendment will expand the existing percent allocable determination to identify instances where pollution control facilities are considered integral to the operation of the applicant's business. For such businesses, the existing return on investment and percent allocable determinations will be replaced by a mechanism that compares the applicant's industry rate of return to a reference rate of return. The proposed amendment contains a provision that allows the applicant to request that a more comprehensive cash flow evaluation methodology be used, however, this will require the applicant to submit detailed financial information in order for the Department to evaluate the facility return on investment.

The comprehensive cash flow evaluation methodology that would be employed in this instance is an incremental analysis that will compare cash flow for the business including the claimed pollution control facility to cash flow assuming that the claimed pollution control facility was not constructed. This incremental cash flow will allow the Department and Commission to consider the true economic benefits that an applicant realizes from installation or construction of the facility.

In addition, the current reference rate of return (percent return before taxes on stockholders' equity) will be replaced by percent profit before taxes on total assets. This change will apply to all applicants. The rationale for using a reference rate related to total assets rather than stockholders' equity is included in Attachment B.

The temporary rule amendments have been drafted to apply to all applications received on or after February 1, 1993. The Attorney General's Office has advised that it may not be possible to apply these rule amendments retroactively, therefore, the Department has not proposed retroactive application of either temporary or permanent rule amendments.

No amendments of a non-essential nature have been included with this proposal.

Authority to Address the Issue

ORS 468.190(3) specifically authorizes the Commission to adopt rules establishing the methods to be used to determine the portion of facility costs properly allocable to the prevention, control or reduction of pollution. The Commission has previously adopted rules for this purpose as contained in OAR 340-16-030.

Pursuant to ORS 183.335(5), the Commission may adopt, amend or suspend a rule on a temporary basis and without prior notice or hearing, where it finds that failure to act promptly will result in serious prejudice to the public interest. The proposed findings in this staff report address this issue.

Rules adopted under ORS 183.335(5) are effective for a period not to exceed 180 days. The Department is proposing that identical, or nearly identical, rule amendments be pursued immediately through permanent rule adoption processes.

Alternatives and Evaluation

The Department has concluded that the goal of the Commission's directive cannot be accomplished within the existing tax credit rule and, therefore, rule amendments are required. The primary alternative to adoption of temporary rule amendments is the adoption of permanent rule amendments. Considering the time required to evaluate public input and formally adopt rule amendments, the Department is concerned that numerous applications could be submitted under the provisions of the existing rule and this will have a significant negative impact on the State's general fund. Since tax credits certified may be claimed by the applicant over a period of 10 years, the cumulative negative impact resulting from tax credits certified would continue well into the future.

The Department explored several alternate methods that could be used to establish the facility return on investment and percent allocable. We believe that the recommended methodology is the most equitable way of addressing the intent of the tax credit statute and the Commission's directive. In addition, the selected alternative is relatively simple to employ and allows prospective applicants to make a quick determination of whether a pollution control facility has a return on investment, and whether the applicant will need to submit detailed information to support a lower return on investment.

Summary of Any Prior Public Input Opportunity

The proposed rule amendments were developed through an internal review of the current procedures. No public input was solicited in developing the proposed temporary rule amendments. The Commission will have 180 days from the date the temporary rule amendments are filed with the Secretary of State to adopt permanent rule amendments. There will be significant opportunity for public input during the permanent rule adoption process.

The Department mailed letters in early November to 18 commercial landfill operators in the state informing them of the Commission's intent to amend the tax credit rule and indicating that the proposed amendments might impact future tax credit applications submitted by these firms. Two of the parties receiving this letter have acknowledged receipt of the letter either in writing or verbally. No other comments have been received on the Commission's position on the rule amendments.

Proposed Findings

- 1) Pursuant to ORS 468.190(1), the Environmental Quality Commission is required to consider five factors in establishing the portion of pollution control facility costs properly allocable to pollution control.
- 2) The Commission and Department of Environmental Quality have identified a serious flaw in the existing tax credit rules related to the determination of the facility return on investment and percent allocable to pollution control as specified in ORS 468.190(1)(b).
- 3) This flaw does not allow the Department to effectively factor out economic benefits for certain businesses and industries as specified in ORS 468.190 and OAR 340-16-030.

- 4) This flaw overstates the percent allocable to pollution control for certain industries and consequently, allows the applicant to receive tax credit certification in amounts exceeding what it would otherwise be eligible for.
- 5) Failure to promptly adopt these temporary rule amendments will result in considerable loss of future State income tax revenue from tax credits claimed, and will result in serious prejudice to the public interest.
- 6) Failure to promptly adopt these temporary rule amendments to clarify the method for calculating the extent of tax credit eligibility may adversely affect potential future applicants who might plan for and initiate construction of facilities in anticipation of receiving tax credit benefits as determined using the existing rule.

Recommendation for Commission Action

It is recommended that the Commission adopt the proposed findings as presented in this report and the temporary amendments to the pollution control facilities tax credit rule as presented in Attachment A.

<u>Attachments</u>

- A. Full text of existing rule and proposed amendments, including Tables 1 and 2 as referenced in the rule.
- B. Discussion of proposed rule amendments.
- C. Fiscal and Economic Impact Statement.

Reference Documents (available upon request)

- 1. ORS 468.150 to 468.190, Pollution Control Facilities Tax Credit Statutes.
- 2. ORS 183.325 to 183.410, Adoption of Rules.

Approved:

ved:	$I \cap O \cap$
Section:	loturer
Division:	Michael Down

Report Prepared By: John Fink Phone: 229-6149 Date Prepared: December 29, 1992

OREGON ADMINISTRATIVE RULES FOR POLLUTION CONTROL TAX CREDITS CHAPTER 340, DIVISION 16

[Note: words stricken are deletions; words underlined are additions.]

340-16-005 PURPOSE

The purpose of these rules is to prescribe procedures and criteria to be used by the Department and Commission for issuance of tax credits for pollution control facilities. These rules are to be used in connection with ORS 468.150 to 468.190 and apply only to facilities on which construction has been completed after December 31, 1983, except where otherwise noted herein.

340-16-010 DEFINITIONS

- (1) "Circumstances beyond the control of the applicant" means facts, conditions and circumstances which applicant's due care and diligence would not have avoided.
- (2) "Commission" means Environmental Quality Commission.
- (3) "Department" means Department of Environmental Quality.
- (4) "Facility" means a pollution control facility.
- (5) "Like-for-like replacement cost" means the current price of providing a new facility of the same type, size and construction materials as the original facility.
- (6) "Material recovery process" means any process for obtaining from solid waste, hazardous waste or used oil, by presegregation or otherwise, materials which still have useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purpose. This does not include any process in which the major purpose is the production of fuel from solid waste, hazardous waste or used oil which can be utilized for heat content or other forms of energy. It does not include any type of process which burns waste to produce energy or to reduce the amount of waste. However, it does not eliminate from eligibility a pollution control device associated with a process which burns waste if such device is otherwise eligible for pollution control tax credit under these rules.
- (7) "Principal purpose" means the most important or primary purpose. Each facility may have only one principal purpose.
- (8) "Reconstruction or replacement" means the provision of a new facility with qualities and pollution control characteristics equivalent to the original facility. This does not include repairs or work done to maintain the facility in good working order.
- (9) "Sole purpose" means the exclusive purpose.
- (10)(a) "Spill or unauthorized release" means the discharge, deposit, injection, dumping, spilling, emitting, releasing, leakage or placing of oil, hazardous materials or other polluting substances into the air or into or on any land or waters of the state, as defined in ORS 468.700, except as authorized by a permit issued under ORS Chapter 454, 459, 468 or 469, ORS 466.005 to 466.385, ORS 466.880(1) and (2), 466.890 and 466.995(1) and (2) or federal law while being stored or used

for its intended purpose.

- (b) For purposes of determining eligibility for tax credits under these rules, polluting substances released into the environment in conjunction with operation of a previously approved facility or activity where such facility or activity was operated in compliance with requirements imposed by the Department or the Federal Environmental Protection Agency, and where the polluting substances which must now be cleaned up are determined by the Department to have been an unanticipated result of the approved facility or activity and are not deemed to be a "spill or unauthorized release."
- (11) "Substantial completion" means the completion of erection, installation, modification, or construction of all elements of the facility which are essential to perform its purpose.
- (12) "Useful life" means the number of years the claimed facility is capable of operating before replacement or disposal.
- 340-16-020 PROCEDURES FOR RECEIVING TAX CREDIT CERTIFICATION
 - (1) Filing of Application:
 - (a) A written application for tax credit certification shall be made to the Department on a form provided by the Department;
 - (b) The application shall be submitted within two years of substantial completion of construction of the facility.
 Failure to submit a timely application shall make the facility ineligible for tax credit certification;
 - (c) The Commission may grant an extension of time to submit an application if circumstances beyond the control of the applicant would make a timely filing unreasonable;
 - (d) An extension shall only be considered if applied for within two years of substantial completion of construction of the facility. An extension may be granted for no more than one year. Only one extension may be granted;
 - (e) Within 30 days of receipt of an application, the Department shall request any additional information that applicant needs to submit in order for the application to be considered complete. The Department may also require any other information necessary to determine whether the construction is in accordance with Department statutes, rules and standards;
 - (f) An application shall not be considered filed until all requested information is furnished by the applicant, and the Department notifies the applicant in writing that the application is complete and ready for processing;
 - (g) An application may be withdrawn and resubmitted by applicant at any time within two years of substantial completion of construction of the facility without paying an additional processing fee, unless the cost of the facility has increased. An additional processing fee shall be calculated by subtracting the cost of the facility on the original application from the cost of the facility on the resubmitted application and multiplying the remainder by one-half of one percent;

- (h) If the Department determines the application is incomplete for processing and the applicant fails to submit requested information within 180 days of the date when the Department requested the information, the application will be rejected by the Department unless applicant requests in writing additional time to submit requested information;
- (i) If the application is submitted after the two year period following substantial completion and the applicant has not filed an extension request, the application will be rejected by the Department.
- (2) Commission Action:
 - (a) Notice of the Department's recommended action on the application shall be mailed at least seven days before the Commission meeting where the application will be considered unless the applicant waives the notice requirement in writing. The Commission shall act on an application for certification before the 120th day after the filing of a complete application. The Commission may consider and act upon an application at any of its regular or special meetings. The matter shall be conducted as an informal public informational hearing, not a contested case hearing, unless ordered otherwise by the Commission;
 - (b) Certification:
 - (A) If the Commission determines that the facility is eligible, it shall make appropriate findings and certify the actual cost of the facility and the portion of the actual cost properly allocable to pollution control, material recovery or recycling as set forth in ORS 468.190. Each certificate shall bear a separate serial number for each such facility;
 - (B) The actual cost or portion of the actual cost certified shall not exceed the taxpayer's own cash investment in the facility or portion of the facility;
 - (C) No determination of the proportion of the actual cost of the facility to be certified shall be made until a complete application is filed;
 - (D) If two or more facilities constitute an operational unit, the Commission may certify such facilities under one certificate;
 - (E) A certificate is effective for purposes of tax relief in accordance with ORS 307.405, 316.097 and 317.116 if erection, construction or installation of the facility was completed and certified before December 31, 1995;
 - (F) Certification of a pollution control facility qualifying under ORS 468.165(1) shall be granted for a period of 10 consecutive years. The 10-year period shall begin with the tax year of the person in which the facility is certified under this section. However, if ad valorem tax relief is utilized by a corporation organized under ORS Chapter 61 or 62 the facility shall be exempt from ad valorem taxation, to the extent of the portion allocable, for a period of 20 consecutive years, or 10 years if construction is commenced after June 30, 1989 and completed before December 31, 1990,

from the date of its first certification by the Commission;

- (G) Portions of a facility qualifying under ORS 468.165(1)(c) may be certified separately under this section if ownership of the portions is in more than one person. Certification of such portions of a facility shall include certification of the actual cost of the portion of the facility to the person receiving the certification. The actual cost certified for all portions of a facility separately certified under this subsection shall not exceed the total cost of the facility that would have been certified under one certificate. The provisions of ORS 316.097(8) or 317.116 whichever is applicable, shall apply to any sale, exchange or other disposition of a certified portion of a facility.
- (c) Rejection: If the Commission rejects an application for certification, or certifies a lesser actual cost of the facility or a lesser portion of the actual cost properly allocable to pollution control, material recovery or recycling than was claimed in the application for certification, the Commission shall cause written notice of its action, and a concise statement of the findings and reasons therefore, to be sent by registered or certified mail to the applicant.
- (3) Appeal: If the application is rejected by the Commission for any reason, or if the applicant is dissatisfied with the certification of actual cost or portion of the actual cost properly allocable to pollution control, resource recovery or recycling, the applicant may appeal from the rejection as provided in ORS 468.110. The rejection of the certification is final and conclusive on all parties unless the applicant takes an appeal therefrom as provided in ORS 468.110 before the 30th day after notice was mailed by the Commission.

340-16-025 QUALIFICATION OF FACILITY FOR TAX CREDITS

- (1) "Pollution control facility" or "facility" shall include any land, structure, building, installation, excavation, machinery, equipment or device, or alternative methods for field sanitation and straw utilization and disposal as approved by the Field Burning Advisory Committee and the Department, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person, which will achieve compliance with Department statutes and rules or Commission orders or permit conditions before certification, where applicable, if:
 - (a) The principal purpose of the facility is to comply with a requirement imposed by the Department, the Federal Environmental Protection Agency or regional air pollution authority to prevent, control or reduce air, water or noise pollution or solid or hazardous waste or to recycle or provide for the appropriate disposal of used oil. To meet the definition of principal purpose, the facility must be established to comply with the environmental requirements specified in this subsection for the control, reduction, or prevention of pollution, or for the material recovery of solid waste, hazardous waste or used oil. Other benefits of economic value that are a result of the facility, are not eligible for tax credit and must be eliminated through the return on investment calculation; or

- (b) The sole purpose of the facility is to prevent, control or reduce a substantial quantity of air, water or noise pollution or solid or hazardous waste or to recycle or provide for the appropriate disposal of used oil. In order to meet the definition of sole purpose, the only function or use of the facility must be the control, reduction, or prevention of pollution, or, for the material recovery of solid waste, hazardous waste or used oil. Sole purpose is not applicable where the facility is established in response to the environmental requirements identified in subsection (a) of this section. Other benefits of economic value which result from the facility are not eligible for tax credit and must be eliminated through the return on investment calculation.
- (2) Such prevention, control or reduction required by this subsection shall be accomplished by:
 - (a) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468.700;
 - (b) The disposal or elimination of or redesign to eliminate air contaminants or air pollution or air contamination sources and the use of air cleaning devices as defined in ORS 468.275;
 - (c) The substantial reduction or elimination of or redesign to eliminate noise pollution or noise emission sources as defined by rule of the Commission;
 - (d) The use of a material recovery process which obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005, hazardous waste as defined in ORS 466.005, or used oil as defined in ORS 468.850;
 - (e) The treatment, substantial reduction or elimination of or redesign to treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005; or
 - (f) Approved alternative field burning methods and facilities which shall be limited to:
 - (A) Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning;
 - (B) Propane flamers or mobile field sanitizers which are alternatives to open field burning and reduce air quality impacts; and
 - (C) Drainage tile installations which will result in a reduction of grass seed acreage under production.
 - (g) Installation or construction of facilities which will be used to detect, deter, or prevent spills or unauthorized releases. This does not include any facility installed, constructed or used for cleanup after a spill or unauthorized release has occurred.
- (3) "Pollution control facility" or "facility" does not include:

(a) Air conditioners;

- (b) Septic tanks or other facilities for human waste;
- (c) Property installed, constructed or used for moving sewage to the collecting facilities of a public or quasi-public sewerage system;
- (d) Any distinct portion of a pollution control facility that makes an insignificant contribution to the principal or sole purpose of the facility including the following specific items:
 - (A) Office buildings and furnishings;
 - (B) Parking lots and road improvements;
 - (C) Landscaping;
 - (D) External lighting;
 - (E) Company or related signs; and
 - (F) Automobiles.
- (e) Facilities not directly related to the operation of the industry or enterprise seeking the tax credit;
- (f) Asbestos abatement; or
- (g) Replacement or reconstruction of all or a part of any facility for which a pollution control facility certificate has previously been issued under ORS 468.170, except:
 - (A) If the cost to replace or reconstruct the facility is greater than the like-for-like replacement cost of the original facility due to a requirement imposed by the Department, the Federal Environmental Protection Agency or a regional air pollution authority, then the facility may be eligible for tax credit certification up to an amount equal to the difference between the cost of the new facility and the like-for-like replacement cost of the original facility; or
 - (B) If a facility is replaced or reconstructed before the end of its useful life then the facility may be eligible for the remainder of the tax credit certified to the original facility.
- (h) Property or facilities installed, constructed or used for cleanup of emergency spills or unauthorized releases. This includes any facility installed, constructed or used for cleanup after a spill or unauthorized release has occurred.
- (4) Any person may apply to the Commission for certification under ORS 468.170 of a pollution control facility or portion thereof erected, constructed or installed by the person in Oregon if:
 - (a) The air or water pollution control facility was erected, constructed or installed on or after January 1, 1967;
 - (b) The noise pollution control facility was erected, constructed or installed on or after January 1, 1977;
 - (c) The solid waste facility was under construction on or after

January 1, 1973, or the hazardous waste, used oil, material recovery, or recycling facility was under construction on or after October 3, 1979, and if:

- (A) The facility's principal or sole purpose conforms to the requirements of ORS 468.155(1);
- (B) The facility will utilize material that would otherwise be solid waste as defined in ORS 459.005, hazardous waste as defined in ORS 466.005 or used oil as defined in ORS 468.850:
 - (i) By mechanical processing or chemical processing; or
 - (ii)Through the production, processing, presegregation, or use of:
 - Materials which have useful chemical or physical properties and which may be used for the same or other purposes: or
 - (II) Materials which may be used in the same kind of application as its prior use without change in identity.
- (C) The end product of the utilization is an item of real economic value;
- (D) The end product of the utilization, is competitive with an end product produced in another state; and
- (E) The Oregon law regulating solid waste imposes standards at least substantially equivalent to the federal law.
- (d) The hazardous waste control facility was erected, constructed or installed on or after January 1, 1984 and if:
 - (A) The facility's principal or sole purpose conforms to the requirements of ORS 468.155(1); and
 - (B) The facility is designed to treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005.
- (5) The Commission shall certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof, for which an application has been made under ORS 468.165, if the Commission finds that the facility:
 - (a) Was erected, constructed or installed in accordance with the requirements of ORS 468.165(1);
 - (b) Is designed for, and is being operated or will operate in accordance with the requirements of ORS 468.155; and
 - (c) Is necessary to satisfy the intents and purposes of and is in accordance with the applicable Department statutes, rules and standards.

- 340-16-030 DETERMINATION OF PERCENTAGE OF CERTIFIED FACILITY COST ALLOCABLE TO POLLUTION CONTROL
 - (1) Definitions:
 - (a) "Annual incremental cash flow" means the estimated annual cash flow for each year of the useful life of a claimed pollution control facility integral to the applicant's business calculated as follows:
 - (A) Calculate the applicant's annual cash flow with the claimed facility by subtracting the annual operating expenses for the applicant's business from the gross annual income for the applicant's business for each year of the useful life of the claimed facility; and
 - (B) Calculate the applicant's annual cash flow assuming that the claimed facility was not erected, constructed, or installed by subtracting the annual operating expenses for the applicant's business using this assumption from the gross annual income for the applicant's business using this assumption for each year of the useful life of the claimed facility; and
 - (C) Subtract the applicant's annual cash flow assuming that the claimed facility was not erected, constructed, or installed from the annual cash flow with the claimed facility for each year of the useful life of the claimed facility.
 - (a) (b) "Annual operating expenses" means the estimated costs of operating the claimed facility or the applicant's business if pollution control facilities are integral to the operation of the applicant's business, including labor, utilities, property taxes, insurance, and other cash expenses, less any savings in expenses attributable to installation of the claimed facility. Depreciation, interest expenses, and state and federal taxes are not included.
 - (b) (c) "Average annual cash flow" means the estimated average annual cash flow from the claimed facility for the first five full years of operation calculated as follows:
 - (A) Calculate the annual cash flow for each of the first five full years of operation by subtracting the annual operating expenses from the gross annual income for each year; and
 - (B) Sum the five annual cash flows and divide the total by five. Where the useful life of the claimed facility is less than five years, sum the annual cash flows for the useful life of the facility and divide by the useful life.
 - (c) (d) "Claimed facility cost" means the actual cost of the claimed facility minus the salvage value of any facilities removed from service. Certification of the actual cost of the claimed facility must be documented by a certified public accountant for facilities with a claimed facility cost over \$20,000;

- (d) (e) "Gross annual income" means the estimated total annual income from the claimed facility or the applicant's business if pollution control facilities are integral to the operation of the applicant's business, derived from sale or reuse of recovered materials or energy or any other means including savings that may occur as a result of the facility;
 - (f) "Internal rate of return" means the rate of return that will equate the present value of annual incremental cash flows over the useful life of the claimed facility with the present value of the claimed facility cost.
 - (q) "Pollution control facilities integral to the operation of the applicant's business" means that the business is unable to operate or is only able to operate at reduced income levels, without the claimed pollution control facility. Such instances include, but are not limited to, commercial solid waste and hazardous waste landfills, solid and hazardous waste recycling businesses, and environmental service providers. Factors that the Department may use to determine whether pollution control facilities are integral to the operation of the business include:
 - (A) Pollution control facilities represent in excess of 25 percent of the total assets of the business; or
 - (B) The claimed pollution control facilities were erected, constructed, or installed in response to market demand for such pollution control facilities. This may occur as the result of requirements imposed by the Department, the Federal Environmental Protection Agency or regional air pollution authority, on parties unaffiliated with the applicant; or
 - (C) Erection, construction, or installation of the claimed facility and any previously certified pollution control facilities, allows the applicant to generate gross revenues at least 50 percent greater than would have been generated in the absence of the claimed facility and any previously certified pollution control facilities; or
 - (D) The applicant's operating expenses related to operation of the claimed facilities and any previously certified pollution control facilities are at least 50 percent of the operating expenses of the applicant's business.
- (e) (h) "Salvage value" means the value of a facility at the end of its useful life minus what it costs to remove it from service. Salvage value can never be less than zero.
- (2) In establishing the portion of costs properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil for facilities qualifying for certification under ORS 468.170, the Commission shall consider the following factors and make appropriate findings regarding their applicability:
 - (a) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity;
 - (b) The estimated annual percent return on the investment in the facility;

- (c) The alternative methods, equipment and costs for achieving the same pollution control objective;
- (d) Related savings or increases in costs which occur or may occur as a result of the installation of the facility; or
- (e) Other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil.
- (3) The portion of actual costs properly allocable shall be from zero to 100 percent in increments of one percent. If zero percent, the Commission shall issue an order denying certification.
- (4) In considering the factors listed in this rule, the Commission may determine in its findings that one or more factors are more important than others and may assign different weights to the factors when determining the portion of costs properly allocable to pollution control.
- (5) When considering the estimated annual percent return on investment in the facility, subsection (2)(b) of this rule, for applicants where pollution control facilities are integral to the operation of the business, and for applications received on or after February 1, 1993, the following steps will be used:
 - (a) Using the applicant's primary four digit Standard Industrial Classification (SIC):

(A) Determine the industry median profit before taxes as a percent of total assets for the five years prior to the year of completion of the claimed facility from Robert Morris Associates, Annual Statement Studies; and

(B) Determine the industry average profit before taxes as a percent of total assets by summing the median profit before taxes as a percent of total assets for the five years prior to the year of completion of the claimed facility and divide by five. Where five years are not available, sum the number of years that are available and divide by the number of years.

- (b) Determine the reference annual percent return on investment from Table 2. Select the reference percent return from Table 2 that corresponds with the year construction was completed on the claimed facility. For each future calendar year not shown in Table 2, the reference percent return shall be the five-year average of the rate of return before taxes on total assets for all United States manufacturing corporations for the five years prior to the calendar year of interest;
 - (A) If the industry average profit before taxes as a percent of total assets is greater than the reference rate of return, the percent allocable would be 0 percent;
 - (B) If the industry average profit before taxes as a percent of total assets is less than the reference rate of return, the percent allocable will be determined from the following formula:

 $P_{A} = (\underline{RROI - IROI}) X 100$ RROI

where:

 P_{A} is the percentage of actual costs properly allocable to pollution control in percent, rounded off to the nearest whole number.

IROI is the industry average annual profit before taxes as a percent of total assets.

RROI is the reference annual percent return on investment from Table 2.

- (c) If the Annual Statement Studies do not list the industry median profit before taxes as a percent of total assets for the applicant's primary four digit SIC, the applicant and the Department will determine whether an alternate SIC is appropriate for the applicant's business. If no alternate SIC is appropriate, the percent allocable will be determined using the procedures in subsection (d) of this rule.
- (d) If an applicant whose pollution control facilities are determined by the Department to be integral to the applicant's business is dissatisfied with the percent allocable determination made using the procedures in subsections (5)(a) and (5)(b) of this rule, or if no SIC is appropriate for the applicant's business, the applicant will furnish the following information to the Department:
 - (A) An income statement, balance sheet, statement of cash flows, and federal and state tax returns (if applicable) for the applicant's business for the applicant's three fiscal years prior to the date of submission of the application. If three years of such statements are not available, the applicant will submit information for the years that are available.
 - (B) Revenue and expense projections, and cash flow projections for the applicant's business beginning with the year the application is submitted and continuing for the entire useful life of the pollution control facility. The level of detail of these projections shall be substantially equivalent to the level of detail of information submitted in subsection (A). The Department may elect to provide the applicant with a worksheet for this purpose.
 - (C) <u>Revenue and expense projections</u>, and cash flow projections for the applicant's business for the entire useful life of the claimed facility and assuming that the claimed pollution control facility is not erected, constructed or installed.
 - (D) A projection of the applicant's future capital expenditures for pollution control facilities.
 - (E) A letter signed by the applicant authorizing the Department to contract with an independent certified public accountant to review the financial information provided by the applicant. The applicant will agree to reimburse the Department for the cost of this review.

- (F) Using the information submitted in subsections (A) through (D), the Department will calculate an Internal Rate of Return for the claimed facility by considering the claimed facility cost and annual incremental cash flow. The Internal Rate of Return will be compared to the reference <u>rate of return:</u>
 - (i) If the applicant's Internal Rate of Return is greater than the reference rate, the percent allocable will be 0 percent.
 - (ii) If the applicant's Internal Rate of Return is less than the reference rate, the percent allocable will be determined by the following formula:

$$P_{A} = \frac{(RROI - IRR)}{RROI} X 100$$

<u>where:</u>

P, is the percentage of actual costs properly allocable to pollution control in percent, rounded off to the nearest whole number.

IRR is the Internal Rate of Return for the claimed <u>facility.</u>

RROI is the reference annual percent return on investment from Table 2.

- (5) (6) When considering the estimated annual percent return on investment in the facility, subsection (2)(b) of this rule, and for applicants where pollution control facilities are not integral to the operation of the business, the following steps will be used:
 - Determine the claimed facility cost, average annual cash flow and useful life of the claimed facility. The Department may (a) require additional information on or documentation of gross annual income estimates for evaluation purposes;
 - Determine the return on investment factor by dividing the (b) claimed facility cost by the average annual cash flow;
 - Determine the annual percent return on investment by using (C) Table 1. At the top of Table 1, find the number equal to the useful life of the claimed facility. In the column under this useful life number, find the number closest to the return on investment factor. Follow this row to the left until reaching the first column. The number in the first column is the annual percent return on investment for the claimed facility. For a useful life greater than 30 years, or percent return on investment greater than 25 percent, Table 1 can be extended by utilizing the following equation:

$$I_{R} = \frac{1 - (1 + i)}{i}$$

where:

 I_R is the return on investment factor.

i is the annual percent return on investment. n is the useful life of the claimed facility.

- (d) Determine the reference annual percent return on investment from Table 2. Select the reference percent return from Table 2 that corresponds with the year construction was completed on the claimed facility. For each future calendar year not shown in Table 2, the reference percent return shall be the five-year average of the rate of return before taxes on stockholders' equity total assets for all United States manufacturing corporations for the five years prior to the calendar year of interest;
- (e) Determine the portion of actual costs properly allocable to pollution control from the following equation:

$$P_{A} = (\underline{RROI} - \underline{ROI}) \times 100$$

RROI

where:

 P_A is the percentage of actual costs properly allocable to pollution control in percent, rounded off to the nearest whole number.

ROI is the annual percent return on investment from Table 1.

RROI is the reference annual percent return on investment from Table 2.

If ROI is greater than or equal to RROI, then the portion of actual costs properly allocable to pollution control shall be zero percent.

340-16-035 PROCEDURE TO REVOKE CERTIFICATION

- (1) Pursuant to the procedures for a contested case under ORS 183.310 to 183.550, the Commission may order the revocation of the final tax credit certification if it finds that:
 - (a) The certification was obtained by fraud or misrepresentation; or
 - (b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or recycling or disposing of used oil as specified in such certificate, or has failed to operate the facility in compliance with Department or Commission statutes, rules, orders or permit conditions where applicable.
- (2) As soon as the order of revocation under this section has become final, the Commission shall notify the Department of Revenue and the county assessor of the county in which the facility is located of such order.
- (3) If the certification of a pollution control or solid waste, hazardous waste or used oil facility is ordered revoked pursuant to subsection (1)(a) of this rule, all prior tax relief provided to the holder of such certificate by virtue of such certificate shall be forfeited and the Department of Revenue or the proper county officers shall proceed to collect those taxes not paid by the certificate holder as a result of the tax relief provided to the holder under any provision of ORS 307.405, 316.097 and 317.116.

- (4) Except as provided in subsection (5) of this rule, if the certification of a pollution control or solid waste, hazardous waste or used oil facility is ordered revoked pursuant to subsection (1)(b) of this rule, the certificate holder shall be denied any further relief provided under ORS 307.405, 316.097 or 317.116 in connection with such facility, as the case may be, from and after the date that the order of revocation becomes final.
- (5) Once a determination has been made under section (1) of this rule, the Commission may revoke tax credits held for any facility or piece of equipment which is for the purpose of preventing, controlling, reducing, or eliminating pollution to the same media and which is at a location adjacent to the non-complying facility.
- (6) Upon notification by the certificate holder that the facility has been inspected by DEQ and found to be in compliance, the Commission may reinstate any revoked tax credit certification if the Commission finds the non-complying facility has been brought into compliance.
- (7) If the Commission reinstates certification, the Commission shall notify the Department of Revenue or the county assessor of the county in which the facility is located that the tax credit certification is reinstated for the remaining period of the tax credit, less the period of revocation. The period of revocation would be from the date the Commission revokes the certificate to the date the Commission reinstates the certificate.
- (8) The Commission may withhold revocation of a certificate when operation of a facility ceases if the certificate holder indicates in writing that the facility will be returned to operation within five years time. In the event that the facility is not returned to operation as indicated, the Commission shall revoke the certificate.

340-16-040 PROCEDURES FOR TRANSFER OF A TAX CREDIT CERTIFICATE

To transfer a tax credit certificate from one holder to another, the Commission shall revoke the certificate and grant a new one to the new holder for the balance of the available tax credit following the procedure set forth in ORS 307.405, 316.097, and 317.116.

340-16-045 FEES FOR TAX CREDIT CERTIFICATION

- (1) An application processing fee of one-half of one percent of the cost claimed in the application of the pollution control facility to a maximum of \$5,000 shall be paid with each application. However, if the application processing fee is less than \$50, no application processing fee shall be charged. A non-refundable filing fee of \$50 shall be paid with each application. No application is complete until the filing fee and processing fee are submitted. An amount equal to the filing fee and processing fee shall be submitted as a required part of any application for a pollution control facility tax credit.
- (2) Upon the Department's receipt of an application, the filing fee becomes non-refundable.
- (3) The application processing fee shall be refunded in whole if the application is rejected.
- (4) The fees shall not be considered by the Environmental Quality Commission as part of the cost of the facility to be certified.

- (5) All fees shall be made payable to the Department of Environmental Quality.
- (6). Notwithstanding subsection (1), the Department may increase the processing fee above the maximum of \$5,000, when an application necessitates an unusually extensive evaluation or analysis to determine the portion of the facility allocable to pollution control or material recovery.
- 340-16-050 TAXPAYERS RECEIVING TAX CREDIT
 - (1) A person receiving a certificate under this section may take tax relief only under ORS 316.097 or 317.116, depending upon the tax status of the person's trade or business except if the taxpayer is a corporation organized under ORS Chapter 61 or 62, or any predecessor to ORS Chapter 62 relating to incorporation of cooperative associations, or is a subsequent transferee of such a corporation, the tax relief may be taken only under ORS 307.405.
 - (2) If the person receiving the certificate is an electing small business corporation as defined in section 1361 of the Internal Revenue Code, each shareholder shall be entitled to take tax credit relief as provided in ORS 316.097, based on that shareholder's pro rata share of the certified cost of the facility.
 - (3) If the person receiving the certificate is a partnership, each partner shall be entitled to take tax credit relief as provided in ORS 316.097, based on that partner's pro rata share of the certified cost of the facility.
 - (4) Upon sale, exchange or other disposition of a facility written notice must be provided to the Department of Environmental Quality by the company, corporation or individual for whom the tax credit certificate has been issued. Upon request, the taxpayer shall provide a copy of the contract or other evidence of disposition of the property to the Department of Environmental Quality.
 - (5) The company, corporation or individual claiming the tax credit for a leased facility must provide a copy of a written agreement between the lessor and lessee designating the party to receive the tax credit and a copy of the complete and current lease agreement for the facility.
 - (6) The taxpayer claiming the tax credit for a facility with more than one owner shall provide a copy of a written agreement between the owners designating the party or parties to receive the tax credit certificate.

TABLE 1

7.5

RETURN ON INVESTMENT PERCENTAGE BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW) AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY 01/06/84

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R.O.I.	1	2	3		3	t	 7 	8	9 •	10
0.00	1.000		3.000	4.000		6.000	7.000			10.000
0.00	0.998	1.993	2.935	3.975	4.963	5.943	6.931	3.000 7.911	5.339	9.864
0.50	0.995	1.985	2.970	3.950	4.926	5.896	508.0	7.823	8.779	9.730
0.75	0.993	1.976	2.956	3.926	4 889	5.840	6.795	7.737	8.672	9.600
1.00	0.990	1.970	2.941	3.902	4.853	5.795	6.725	7 . 6 5 2	8.500	9.471
1.25	0.985	1.963	2.927	3.878	4.818	5.746	6.663	7.563	8.402	9.346
1.50	0.985	1.956	2.912	3.854	4.733	5.697	6.598	7.480	8.301	9.222
1.75	0.953	1.949	2.898	3.831	4.748	5.649	6.535	7.405	8.200	9.101
2.00	0.920	1.942	2.884	3.308	4.713	5.601	6.472	7-325	8.162	8.993
2.25	0.978	1.934	2.870	3.755	4.679	5-554	6-410	7-247		3.266
- 2.50	0.976	1.927	2.856	3.762	4-546	5.503	5-349	7.170	7.971	8.752.
2.75	0.973	1.920	2.842	3.739	4+613	5.462	6.287	7.094	7.878	3.540
3+00	0.971	1.913	2.329	3.717	4.580	5-417	6.230	7.020	7.786	8.530
3.25	G-969	1.907	2.815	3.695	4.547	5-373	5.172	6.946	7.696	3.422
3.50	0.966	1.900	2.802	3.673	4.515	5+329	5.115	0.574	7.003	8.317
3.75	0.964	1.893	2.738	3.651	4-483	5.255	6.055	- 0.803	7.521	3.213
4.00	0.962	1.886	2.775	3.030	4.452	5.242	6.002	6.733	7.435	8.111
4.25	0.959	1.879	2.762	3.609	4-421	5.200	5.947	6 664	7+351	3.011
4-50	0.957	1.873	2.749	3.568	++390	5-158	5-893	6.590	7 . 267	7,913
4.75	0.955	1.865	2.736	3.547	4-340	5.117	5.839	6.529	7.188	7.816
5.00	0.952	1-859	2.723	3.546	4.329	5-675	5.786	6-403	7.108	7.722
5.25	0.950	1.553	2.711	3.525		5.035	5 734		7.029	7.629
5.50 5.75	0.943 0.948		2.698	3.505	4.270	4.996 4.956		6.335 0.272		7.538 7.442
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11111111111111111111111111111111111111	11	12	 13	XPECTED U	SEFUL LIF	E IN YEAR 	17	15	19	
1 A.O.I.	11	12	13	14	SEFUL LIF	E IN YEAR 16	17	15	19	20
2 R.O.I. 0.00	11	12	13 13.000	14 14	SEFUL LIF 15 15.000	E IN YEAR 	17	15	19	20 20.000
2 R.O.I. 0.00 0.25	11 11.000 10.337	12 12.000 11.307	13 13.000 12.775	XPECTED U 14 14.000 13.741	15 15 15.000 14.704	E IN YEAR 16 15.000 15.665	17 17.000 14.623	18 13.000 17.530	19 19.000 18.533	20 20.000 19.484
2 R.O.I. 0.00	11	12	13 13.000	14 14	15 15 15.000 14.704	E IN YEAR 	17	15	19.000 19.000 18.533 18.082	20 20.000 19.484 18.987
2 R.O.I. 0.00 0.25 0.50 0.75	11 11.000 10.337 10.677 10.521	12 12.000 11.307 11.619 11.435	13 13.000 12.775 12.554 12.342	14 14-000 13.741 12.459 13.243	15 15.000 14.704 14.417 14.137	E IN YEAR 16 16.000 15.665 15.340 15.024	17 17.000 14.623 16.257 15.905	15.000 17.580 17.173 16.779	19 19.000 15.533 18.082 17.647	20 20.000 19.484 18.987 19.503
2 R.O.I. 0.00 0.25 0.50 0.75 1.00	11 11.000 10.337 10.677 10.521 10.368	12 12.000 11.307 11.619 11.435 11.255 11.079	13 13.000 12.775 12.554 12.342 12.134	14 14 14.000 13.741 13.459 13.243 13.004	15 15 15.000 14.704 14.417 14.157 13.865	E IN YEAR 16 16 15.665 15.340 15.024 14.713	17 17.000 14.623 16.259 15.905	18 13.000 17.580 17.173 16.779	19 19.000 18.533 18.082 17.047 17.225	20 20.000 19.484 18.987 19.503
2 R.O.I. 0.00 0.25 0.50 0.75 1.00	11 11.000 10.337 10.677 10.521	12 12.000 11.307 11.619 11.435 11.255 11.079	13 13.000 12.775 12.556 12.342 12.134 11.930	14 14 14.000 13.741 13.459 13.243 13.004 12.771	15 15 15.000 14.704 14.417 14.157 13.865 13.601	E IN YEAR 16 16-000 15-665 15-340 15-024 14-710 14-420	17 17.000 14.623 16.257 15.905 15.562 15.530	15 13.000 17.580 17.173 16.779 16.398 16.030	19 19.000 18.533 18.082 17.047 17.225 16.819	20 20.000 19.484 18.987 18.503 15.046 17.599
2 R.O.I. 0.00 0.25 0.50 0.75 1.00 1.25	11 11.000 10.337 10.677 10.521 10.368 10.218	12 12.000 11.307 11.619 11.435 11.255	13 13.000 12.775 12.554 12.342 12.134	14 14 14 14 14 000 13.741 13.459 13.243 13.004 12.771 12.543	15 15 15.000 14.704 14.417 14.157 13.865	E IN YEAR 16 16 15.665 15.340 15.024 14.713	17 17.000 14.623 16.259 15.905	18 13.000 17.580 17.173 16.779	19 19.000 18.533 18.082 17.047 17.225 16.819 16.426	20 20.000 19.484 18.987 19.503
x R.O.I. 0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00	11 11.000 10.337 10.677 10.521 10.368 10.218 10.071	12 12.000 11.307 11.619 11.435 11.255 11.079 10.908	13 13.000 12.775 12.554 12.342 12.134 11.930 11.732	14 14 14 14 14 000 13.741 13.459 13.243 13.004 12.771 12.543	15 15 15.000 14.704 14.417 14.157 13.865 13.601 13.343	E IN YEAR 16 16.000 15.665 15.340 15.024 14.713 14.420 14.131 15.550	17 17.000 16.623 16.257 15.905 15.562 15.230 14.908 14.595	15.000 17.580 17.173 16.779 16.398 16.030 15.673 15.327	19 19.000 18.533 18.582 17.225 16.819 16.426 16.046	20 20.000 19.484 18.987 13.503 15.046 17.594 17.169 10.753
2 R.O.I. 0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.50 1.75 2.00 2.25	11 11.000 10.337 10.677 10.521 10.368 10.218 10.671 9.927	12 12.000 11.807 11.619 11.435 11.255 11.079 10.908 10.740	13 13.000 12.775 12.554 12.342 12.134 11.930 11.732 11.538	14 14 14.000 13.741 12.459 13.243 13.004 12.771 12.543 12.322	15 15.000 14.704 14.417 14.157 13.865 13.601 13.343 13.093	E IN YEAR 16 16.000 15.665 15.340 15.024 14.710 14.420 14.131 15.550 13.373	17 17.000 14.623 15.257 15.905 15.562 15.230 14.905 14.595 14.292	15 13.000 17.580 17.173 16.779 16.398 16.030 15.673 15.327 14.992	19 19.000 18.533 14.082 17.247 17.225 16.819 16.426 16.046 15.678	20 20.000 19.484 18.987 13.503 15.046 17.599 17.169 10.753 14.351
x R.O.I. 0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00 2.25 2.50	11 11.000 10.337 10.677 10.521 10.368 10.218 10.071 9.927 9.787 9.649 9.514	12 12.000 11.307 11.619 11.435 11.255 11.079 10.908 10.740 10.575	13 13.000 12.775 12.554 12.342 12.134 11.930 11.732 11.348	14 14.000 13.741 13.459 13.243 13.004 12.771 12.543 12.322 12.106	SEFUL LIF 15.000 14.704 14.417 14.157 13.865 13.601 13.343 13.093 12.849 12.612	E IN YEAR 16 16.000 15.665 15.340 15.024 14.713 14.420 14.131 15.550 13.372 13.373	17 17.000 14.623 16.257 15.905 15.905 15.230 14.908 14.595 14.292 13.995	15 13.000 17.580 17.173 16.779 16.398 16.030 15.073 15.327 14.992 14.668	19 19.000 15.533 12.082 17.647 17.225 16.819 16.426 16.046 15.678 15.323	20 20.000 19.484 18.987 13.503 15.046 17.599 17.169 10.753 16.351 15.964
2 R.O.I. 0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.50 1.75 2.00 2.25	11 11.000 10.837 10.677 10.521 10.368 10.218 10.671 9.927 9.787 9.649	12 12.000 11.307 11.619 11.435 11.255 11.079 10.908 10.740 10.575 10.415	13 13.000 12.775 12.554 12.342 12.134 11.930 11.732 11.538 11.348 11.144	14 14.000 13.741 13.439 13.243 13.004 12.771 12.543 12.322 12.106 11.396	15 15.000 14.704 14.417 14.137 13.865 13.601 13.343 13.093 12.849	E IN YEAR 16 16.000 15.665 15.340 15.024 14.710 14.420 14.131 15.550 13.373	17 17.000 14.623 15.257 15.905 15.562 15.230 14.905 14.595 14.292	15 13.000 17.580 17.173 16.779 16.398 16.030 15.673 15.327 14.992	19 19.000 18.533 14.082 17.247 17.225 16.819 16.426 16.046 15.678	20 20.000 19.484 18.987 13.503 15.046 17.594 17.169 10.753 14.351
x R.O.I. 0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00 2.25 2.50 2.75 3.00	11 11.000 10.337 10.677 10.521 10.368 10.218 10.671 9.927 9.787 9.449 9.514 9.332 9.253	12 12.000 11.207 11.619 11.435 11.255 11.079 10.908 10.740 10.575 10.415 10.255 10.104 9.954	13 13.000 12.775 12.554 12.554 12.342 12.134 11.930 11.732 11.538 11.348 11.144 10.933 10.507 10.635	14 14.000 13.741 12.459 13.243 13.004 12.771 12.543 12.322 12.106 11.596 11.691 11.295	15 15.000 14.704 14.417 14.417 14.417 14.157 13.865 13.601 13.343 13.093 12.849 12.612 12.321 12.157 11.938	E IN YEAR 16 16.000 15.665 15.340 15.024 14.713 14.420 14.131 15.550 13.572 13.573 13.055	17 17.000 14.623 16.257 15.905 15.562 15.562 15.230 14.908 14.595 14.292 13.998 13.712	18 13.000 17.580 17.173 16.779 16.398 16.030 15.073 15.327 14.992 14.668 14.353	19 19.000 18.533 18.082 17.047 17.225 16.819 16.428 16.046 15.678 15.323 14.979	20 20.000 19.484 18.987 13.503 15.046 17.599 17.169 10.753 16.351 15.964 15.964 15.964
x A.O.I. 0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.50 1.75 2.00 2.25 2.50 2.75 3.00 3.25	11 11.000 10.837 10.677 10.521 10.368 10.218 10.671 9.927 9.787 9.514 9.332 9.253 9.126	12 12.000 11.807 11.619 11.435 11.255 11.079 10.908 10.740 10.575 10.415 10.255 10.104 9.954 9.807	13 13.000 12.775 12.554 12.342 12.134 11.930 11.732 11.538 11.348 11.144 10.933 10.507 10.635 10.435	XPECTED U 14 14.000 13.741 13.459 13.243 13.004 12.771 12.543 12.322 12.106 11.396 11.491 11.295 11.105	SEFUL LIF 15.000 14.704 14.417 14.417 14.137 13.865 13.601 13.343 13.093 12.849 12.612 12.321 12.157 11.538 11.725	E IN YEAR 16 16.000 15.665 15.340 15.024 14.710 14.420 14.131 15.550 13.572 13.573 13.055 12.805	17 17.000 16.623 16.257 15.905 15.562 15.230 14.908 14.908 14.292 13.995 14.292 13.912 13.435	15.000 17.580 17.173 16.398 16.030 15.030 15.327 14.992 14.668 14.353 14.049	19 19.000 18.533 14.082 17.225 16.819 16.428 16.046 15.678 15.323 14.979 14.646	20 20.000 19.484 18.987 13.503 15.046 17.597 17.169 10.753 16.351 15.964 15.530 15.227
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x A.O.I. O.00 0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00 2.25 2.50 2.75 3.00 .3.25 3.75 4.00 4.25 4.55 4.55 4.55 5.75	11 11.000 10.337 10.677 10.521 10.368 10.218 10.071 9.927 9.787 9.449 9.514 9.332 9.253 9.126 9.002 3.880 3.760 3.644 2.527 5.417	12 12.000 11.207 11.619 11.435 11.255 11.079 10.908 10.740 10.575 10.415 10.258 10.104 9.954 9.807 9.663 9.523 9.385 9.250 9.119 3.990	13 13.000 12.775 12.554 12.342 12.134 11.930 11.732 11.538 11.348 11.144 10.933 10.435 10.435 10.457 10.303 10.142 9.653 9.653 9.537	XPECTED U 14 14.000 13.741 13.459 13.243 13.004 12.543 12.543 12.322 12.106 11.596 11.596 11.596 11.401 11.295 10.721 10.740 10.563 10.223 10.059	15 15 15 15 15 000 14 14 14 17 14 15 13 26 13 26 13 13 26 13 13 26 13 13 26 13 13 26 15 17 16 26 17 16 26 17 16 26 17 16 27 11 27 11 27 11 27 11 27 11 27 11 27 11 27 11 27 10 25 7 10 25 7 10 25 7 10 25 7 10 25 7 10 25 7 10 25 7 10 25 7 10 25 7 10 26 25 7 10 25 10 25 10 25 10 10 10 10 10 10 10 10 10 10	E IN YEAR 16 16.000 15.065 15.340 15.024 14.713 14.420 14.420 14.131 15.550 13.372 13.373 13.055 12.561 12.324 12.324 12.324 11.870 11.870 11.432 11.435	17 17.000 14.623 16.257 15.905 15.230 14.908 14.908 14.995 14.297 13.995 13.995 13.712 13.435 13.156 12.955 12.405 12.405 12.166 11.733 11.707 11.622	18 13.000 17.580 17.173 16.779 16.398 16.030 15.073 15.073 15.327 14.992 14.668 14.353 14.049 13.754 13.495 12.920 12.057 12.406 12.160 11.721	19 19.000 18.533 12.082 17.225 16.819 16.428 16	20 20.000 19.484 18.987 13.503 15.046 17.599 17.169 10.753 16.351 15.964 15.964 15.964 15.227 14.539 14.539 14.539 14.539 14.539 15.224 13.896 13.590 15.294 13.008 12.731
x R.O.I. 0.00 0.25 0.50 0.75 1.00 1.025 1.30 1.30 1.75 2.00 2.25 2.55 2.75 3.00 3.75 4.00 4.25 4.55 5.00	11 11.000 10.337 10.677 10.521 10.368 10.218 10.071 9.927 9.787 9.449 9.514 9.332 9.253 9.126 9.002 3.860 8.760 3.644 2.527 5.417 3.306	12 12.000 11.207 11.619 11.435 11.255 11.079 10.908 10.740 10.575 10.415 10.255 10.415 10.255 10.415 10.255 10.255 10.455 10.255 10.455 10.255 10.255 10.455 10.255 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.255 10.255 10.455 10.255 10.255 10.455 10.255 10.255 10.255 10.255 10.455 10.255 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.455 10	13 13.000 12.775 12.554 12.342 12.134 11.930 11.732 11.538 11.348 11.144 10.933 10.435 10.407 10.635 10.427 9.294	XPECTED U 14 14.000 13.741 12.459 13.243 13.004 12.771 12.543 12.322 12.106 11.596 11.691 11.491 11.491 11.491 11.491 11.491 10.721 10.760 10.563 10.391 13.223 10.059 9.899	SEFUL LIF 15.000 14.704 14.417 14.157 13.865 13.601 13.343 13.093 12.849 12.612 12.321 12.157 11.517 11.517 11.517 11.517 10.740 10.557 10.320	E IN YEAR 16 15.000 15.024 14.710 15.024 14.710 15.024 14.720 15.024 14.720 13.572 13.572 13.572 13.572 12.561 12.324 12.324 12.324 12.324 11.870 11.552 11.440 11.234 11.033 10.833	17 17.000 14.623 16.257 15.905 15.562 15.230 14.908 14.908 14.908 14.908 14.908 14.908 14.908 14.908 13.955 13.435 13.156 12.405 12.405 12.166 11.733 11.707 11.422 11.274	18 13.000 17.580 17.173 16.779 16.398 16.030 15.073 15.327 14.992 14.668 14.049 13.754 13.465 14.049 13.754 13.495 12.920 12.057 12.406 12.160 11.721 11.690	19 19.000 18.533 14.082 17.225 16.819 16.428 16	20 19.484 18.987 13.503 15.046 17.599 10.753 14.351 15.964 15.539 14.539 14.539 14.539 14.539 14.539 14.539 14.539 14.539 15.224 13.896 13.590 15.294 13.008 12.731 12.462
x A.O.I. O.00 0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00 2.25 2.50 2.75 3.00 .3.25 3.75 4.00 4.25 4.55 4.55 4.55 5.75	11 11.000 10.337 10.677 10.521 10.368 10.218 10.071 9.927 9.787 9.449 9.514 9.332 9.253 9.126 9.002 3.880 3.760 3.644 2.527 5.417	12 12.000 11.207 11.619 11.435 11.255 11.079 10.908 10.740 10.575 10.415 10.255 10.455 10.255 10.455 10.255 10.455 10.455 10.255 10.455 10.255 10.455 10	13 13.000 12.775 12.554 12.554 12.342 12.134 11.930 11.732 11.538 11.348 11.144 10.933 10.307 10.635 10.425 0.924 9.653 9.594 9.254	XPECTED U 14 14.000 13.741 13.459 13.243 13.004 12.771 12.543 12.322 12.106 11.596 11.691 11.491 11.295 11.106 10.721 10.740 10.563 10.391 10.223 10.059 9.899 9.742	SEFUL LIF 15.000 14.704 14.417 14.417 14.157 13.865 13.601 13.843 13.893 12.849 12.819 12.819 12.819 12.819 12.819 12.819 12.819 13.093 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.095 13.005 13.057 13.057 13.057 13.057 13.057 13.057 13.057 13.057 13.0557 10.750 10	E IN YEAR 16 16.000 15.665 15.340 15.024 14.710 14.420 14.420 14.131 15.550 13.573 13.555 12.805 12.561 12.326 12.561 12.326 12.561 12.326 11.870 11.552 11.440 11.234 11.035 10.833 10.647	17 17.000 14.623 14.257 15.905 15.562 15.562 15.230 14.908 14.908 14.908 14.908 14.995 13.156 12.905 12.651 12.405 12.166 11.733 11.707 11.622 11.274 11.064	15.000 17.580 17.173 16.799 16.398 16.030 15.327 14.992 14.668 14.353 14.049 13.754 13.465 12.920 12.057 12.406 12.160 11.721 11.690 11.465	19 19.000 18.533 14.082 17.225 16.819 16.426 16.426 16.426 16.426 16.426 16.426 14.979 14.646 14.324 14.979 14.646 14.324 14.979 14.646 14.324 13.710 13.417 13.134 12.533 12.533 12.085 11.843	20 19.484 18.987 13.503 15.046 17.599 10.753 14.351 15.964 15.539 14.539 14.539 14.539 14.539 14.539 14.539 14.539 14.539 15.296 13.590 15.294 13.008 12.731 12.462 12.202
x R.O.I. 0.00 0.25 0.50 0.75 1.00 1.02 1.50 1.50 1.75 2.00 2.25 2.50 2.75 3.00 3.75 4.00 4.25 4.50 5.00 5.25	11 11.000 10.337 10.521 10.368 10.218 10.218 10.071 9.927 9.787 9.449 9.332 9.253 9.126 9.002 3.860 3.760 3.644 2.527 5.417 3.306 5.196	12 12.000 11.207 11.619 11.435 11.255 11.079 10.908 10.740 10.575 10.415 10.255 10.415 10.255 10.415 10.255 10.255 10.455 10.255 10.455 10.255 10.255 10.455 10.255 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.255 10.255 10.455 10.255 10.255 10.455 10.255 10.255 10.255 10.255 10.455 10.255 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.455 10.255 10.455 10	13 13.000 12.775 12.554 12.342 12.134 11.930 11.732 11.538 11.348 11.144 10.933 10.435 10.407 10.635 10.427 9.294	XPECTED U 14 14.000 13.741 12.459 13.243 13.004 12.771 12.543 12.322 12.106 11.596 11.691 11.491 11.491 11.491 11.491 11.491 10.721 10.760 10.563 10.391 13.223 10.059 9.899	SEFUL LIF 15.000 14.704 14.417 14.157 13.865 13.601 13.343 13.093 12.849 12.612 12.321 12.157 11.517 11.517 11.517 11.517 10.740 10.557 10.320	E IN YEAR 16 15.000 15.024 14.710 15.024 14.710 15.024 14.720 15.024 14.720 13.572 13.572 13.572 13.572 12.561 12.324 12.324 12.324 12.324 11.870 11.552 11.440 11.234 11.033 10.833	17 17.000 14.623 16.257 15.905 15.562 15.230 14.908 14.908 14.595 14.292 13.998 13.712 13.435 13.146 12.905 12.405 12.405 12.166 11.733 11.707 11.422 11.064 10.655	18 13.000 17.580 17.173 16.779 16.398 16.030 15.073 15.327 14.992 14.668 14.049 13.754 13.465 14.049 13.754 13.495 12.920 12.057 12.406 12.160 11.721 11.690	19 19.000 18.533 14.082 17.225 16.819 16.428 16	20 19.484 18.987 13.503 15.046 17.594 17.169 10.753 14.351 15.964 15.534 15.534 15.534 15.534 15.537 14.539 14.212 13.896 13.590 15.294 13.008 12.731 12.462

TABLE T RETURN ON INVESTMENT PEPCENTAGE BASED ON P.J.I. FACTOR (FACILITY COST/AVNG, KNNUAL CASH FLOA) AND THE EXFECTED USEFUL LIFE OF THE NEW FACILITY 01/Jh/34

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0.30		22.000		24.000	25.000	25.300	27.030			1 0. 0
0.25	20.433	21.389	22.324	23.266	24.205	25.143	26.077	27.010	27.940	23.5
0.50	19.888	20.784	21.676		23.446		25.198			27.7
0.75	19.363	20.211	21-053		22+719					26.7
1.20	18,557	17.250	20.455	21.243			23.560	24.516	25.066	25.3
1.25	13.370	19.131	19.832		22.023					
1.50	17,930	13.621	19.331	20.030	20.720	21.399				
1.73	17.445	11.130	18.801	17.461	23.109	23.745				
								•		
2.30	17.011 14.570	17.653 17.203	18.292 17.803	18.914	17.523			21.291		
2.10	10.370			13.389	15-742				21.132	
2.75	10.183	10.765 15.343	17.332	17.335	13-424			19.965		
4.13		13.343	16.879	17.401	17.902	13.402	18.853	19.351	19.206	20.6
3.00	1515	15.727		16.936	17.413	17.877	18.327	18.704	19.138	
3.25	15.050	15.545	16.024	16.458	15.938	17.373	17.795	15.203	13.599	
3.50	14.698	15.167	15.620	12.058	1022	15.393	17-265	17.687	18.036	18.3
3.75	14.358	14.203	15.232	15.645	14.043	16.427	.16.797	17.154	17.498	17.5
4.00	. 14.029	14.451	14.857	15.247	15.022	15.983	16.330	16.663	16.954	17.2
4.25	13.712	14.112	14.496		15.217					
4.50	13.405	13.78-	14.148	14.495	14+525	15,147				
4.75	13.105	13.462	13.812	14.141	14.454	14.753	15-451			
							-			
5.00	12.821	13.163			14-094				15-141	
5.50	12.275	12.583		(3+407	13.747	14-012	14.253	14.502	14.723	14.9
5.75	12.015		12.875 12.534	12.346	13+414	13.664	13+895	14+123	14.333 13.954	1
	*********	W 2 2 4 8 4 9 2 3	*********		*******	********	*********	*********	*********	
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x -	 1		ĒXP	ECTED USEF	UL LIFE	IN YEARS			**************************************	***** 10
χ ο.ι.	1	2	ëxpi	ECTED USEF	UL LIFE	(N YEARS	7		9	10
x	1	2	ëxpi	ECTED USEF	UL LIFE	(N YEARS	7		9	10 7.360
x	1	2	ëxpi	ECTED USEF	UL LIFE	(N YEARS	7	4.210 0.149	9 5.802 6.728	10 7.3ć0 7.274
x	1 0.943 0.941 0.937	2 1.833 1.827 1.321	č. 673 2. 661 2. 648	ECTED USEF 4 3.465 3.445 3.426	UL LIFE 5 4.212 4.184 4.154	(N YEÀRS 6 4.917 4.879 4.841	7 5.582 5.533 5.485	4 6.21û 6.149 6.059	9 	10 7.5ć0 7.274 7.189
x	1 0.943 0.941 0.937	2 1.833 1.827 1.321	ëxpi	ECTED USEF 4 3.465 3.445 3.426	UL LIFE 5 4.212 4.184 4.154	(N YEÀRS 6 4.917 4.879 4.841	7 5.582 5.533 5.485	4.210 0.149	9 	10 7.3ć0 7.274
x	1 0.943 0.941 0.937 0.937	2 1.833 1.827 1.321 1.314	2. 673 2. 661 2. 648 2. 636	4 3.465 3.445 3.426 3.406	UL LIFE 5 4.212 4.184 4.154 4.128	(N YEÀRS 6 4.917 4.279 4.304	7 5.582 5.533 5.485 5.437	4.210 6.210 6.149 6.059 6.030	9 5.802 6.728 6.654 6.555	10 7.JćQ 7.274 7.189 7.105
x	1 0.943 0.941 0.937 0.937 0.935	2 1.833 1.827 1.321 1.314 1.803	2. 673 2. 661 2. 648 2. 636 2. 624	4 3.465 3.445 3.426 3.426 3.406 5.347	UL LIFE 5 4.212 4.184 4.154 4.128 4.100	(N YEÀRS 6 4.917 4.279 4.304 4.304 4.727	7 5.582 5.533 5.485 5.437 5.389	4.210 6.210 6.149 6.089 6.030 5.971	9 5.802 6.722 6.654 6.555 5.515	10 7.340 7.274 7.189 7.105 7.024
x	1 0.943 0.941 0.937 0.937 0.935 0.935 0.932	2 1.833 1.827 1.321 1.314 1.803 1.502	2. 673 2. 661 2. 648 2. 636 2. 624 2. 612	ECTED USEF 4 3.465 3.445 3.426 3.426 3.406 5.387 3.365	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073	(N YEÀRS 6 4.917 4.279 4.304 4.304 4.727 4.730	7 5.582 5.533 5.485 5.437 5.389 5.343	4 4 6.210 0.149 6.059 6.059 6.030 5.971 5.914	9 5.802 6.728 6.656 6.565 5.515 6.447	10 7.3ć0 7.274 7.189 7.105 7.024 6.943
x	1 0.943 0.941 0.937 0.937 0.935 0.935 0.932	2 1.833 1.827 1.321 1.314 1.803 1.502	2. 673 2. 661 2. 648 2. 636 2. 624 2. 612	ECTED USEF 4 3.465 3.445 3.426 3.426 3.406 5.387 3.365	UL LIFE 5 4.212 4.184 4.154 4.128 4.100	(N YEÀRS 6 4.917 4.279 4.304 4.304 4.727 4.730	7 5.582 5.533 5.485 5.437 5.389 5.343 5.343 5.297	4.210 6.210 6.149 6.089 6.030 5.971	9 5.802 6.722 6.654 6.555 5.515	10 7.JcQ 7.274 7.189 7.105 7.024
x	1 0.943 0.941 0.937 0.937 0.937 0.935 0.932 0.930 0.928	2 1.833 1.827 1.321 1.314 1.102 1.795 1.739	2. 673 2. 661 2. 661 2. 624 2. 636 2. 624 2. 612 2. 601 2. 539	4 3.465 3.465 3.426 3.426 3.400 1.1A7 3.368 3.349 3.331	UL LIFE 5 4.212 4.154 4.128 4.100 4.073 4.046 4.019	(N YEARS 6 4.917 4.879 4.841 4.304 4.767 4.730 4.674 4.674	7 5.582 5.533 5.485 5.437 5.389 5.343 5.343 5.297 5.251	4 6.210 0.149 6.080 6.080 6.000 6.080	9 5.802 6.722 6.454 6.555 0.515 6.447 6.379 6.312	10 7.360 7.274 7.189 7.105 7.024 6.943 6.864 6.786
x	1 0.943 0.941 0.957 0.937 0.935 0.935 0.932 0.928 0.928	2 1.833 1.827 1.321 1.314 1.803 1.902 1.759 1.789 1.783	2. 673 2. 661 2. 661 2. 648 2. 636 2. 624 2. 612 2. 601 2. 539 2. 577	4 3.465 3.465 3.445 3.426 3.400 1.137 3.365 3.349 3.331 3.312	UL LIFE 5 4.212 4.184 4.128 4.100 4.073 4.046 4.019 3.993	(N YEARS 6 4-917 4-879 4-841 4-304 4-747 4-747 4-747 4-674 4-658 4-658 4-658 4-658	7 5.582 5.533 5.437 5.389 5.343 5.297 5.297 5.251 5.204	4 6.210 0.149 6.059 6.059 6.030 5.971 5.914 5.857 5.802 5.747	9 5.802 6.728 6.555 5.515 6.447 6.379 6.312 6.247	10 7.540 7.274 7.189 7.105 7.024 6.943 0.846 6.780 6.710
x	1 0.943 0.941 0.957 0.937 0.935 0.935 0.932 0.928 0.928 0.928 0.925 0.924	2 1.833 1.827 1.321 1.314 1.102 1.729 1.783 1.777	2. 673 2. 673 2. 661 2. 648 2. 636 2. 624 2. 612 2. 612 2. 601 2. 539 2. 577 2. 506	4 3.465 3.465 3.426 3.406 J.JA7 J.365 3.349 3.349 3.312 3.294	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073 4.044 4.019 3.993 3.997	(N YEARS 6 4.917 4.879 4.304 4.727 4.730 4.674 4.658 4.558 4.558	7 5.582 5.533 5.485 5.485 5.485 5.485 5.485 5.485 5.389 5.343 5.297 5.251 5.251 5.206 5.162	4 4 4 4 4 4 4 4 4 4 4 4 4 4	9 5.802 6.728 6.556 6.555 0.515 6.447 6.379 6.312 6.247 5.182	10 7.560 7.274 7.189 7.105 7.024 6.943 0.866 6.786 6.716 0.035
	1 0.943 0.941 0.937 0.937 0.935 0.935 0.932 0.928 0.928 0.925 0.924 0.925	2 1.833 1.827 1.321 1.314 1.803 1.92 1.795 1.789 1.783 1.777 1.771	2. 673 2. 673 2. 661 2. 648 2. 636 2. 624 2. 612 2. 601 2. 539 2. 577 2. 566 2. 554	ECTED USEF 4 3.445 3.445 3.426 3.426 3.426 3.426 3.426 3.426 3.426 3.426 3.426 3.426 3.426 3.426 3.349 3.331 3.312 3.294 3.276	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073 4.044 4.019 3.993 3.993 3.993 3.994	(N YEARS 6 4.917 4.879 4.841 4.304 4.767 4.730 4.674 4.658 4.658 4.556 4.556 4.554	7 5.582 5.533 5.485 5.437 5.389 5.343 5.297 5.251 5.206 5.162 5.119	4.210 6.210 0.149 6.059 6.030 5.971 5.914 5.857 5.802 5.747 5.093 5.339	9 	10 7.3ć0 7.274 7.189 7.105 7.024 6.943 0.864 0.780 0.780 0.35 0.561
4.00 5.25 6.50 5.75 7.00 7.25 7.50 7.75 8.00 4.25	1 0.943 0.941 0.957 0.937 0.935 0.935 0.932 0.928 0.928 0.928 0.925 0.924	2 1.833 1.827 1.321 1.314 1.102 1.729 1.783 1.777	2. 673 2. 673 2. 661 2. 648 2. 636 2. 624 2. 612 2. 612 2. 601 2. 539 2. 577 2. 506	4 3.465 3.465 3.426 3.406 J.JA7 J.365 3.349 3.349 3.312 3.294	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073 4.044 4.019 3.993 3.997	(N YEARS 6 4.917 4.879 4.304 4.727 4.730 4.674 4.658 4.558 4.558	7 5.582 5.533 5.485 5.485 5.485 5.485 5.485 5.485 5.389 5.343 5.297 5.251 5.251 5.206 5.162	4 4 4 4 4 4 4 4 4 4 4 4 4 4	9 5.802 6.728 6.556 6.555 0.515 6.447 6.379 6.312 6.247 5.182	10 7.560 7.274 7.189 7.105 7.024 6.943 0.864 6.786 6.716 0.035
x	1 0.943 0.941 0.937 0.937 0.935 0.935 0.932 0.928 0.928 0.925 0.924 0.925	2 1.833 1.827 1.321 1.314 1.102 1.759 1.789 1.783 1.777 1.775 1.759	2. 673 2. 661 2. 661 2. 624 2. 636 2. 624 2. 612 2. 601 2. 539 2. 577 2. 566 2. 554 2. 543 2. 531	ECTED USEF 4 3.465 3.445 3.426 3.427 3.327 3.327 3.327 3.276 3.276 3.276 3.276 3.276 3.327 3.327 3.276 3.275 3.276 3.275 3.276 3.275 3.276 3.275 3.276 3.2555 3.25555 3.25555 3.25555 3.25555 3.25555 3.25555 3.25555 3.255555 3.255555 3.2555555555555555555555555555555555555	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073 4.044 4.019 3.993 3.993 3.993 3.994	(N YEARS 6 4.917 4.879 4.841 4.304 4.767 4.730 4.674 4.658 4.658 4.556 4.556 4.554	7 5.582 5.533 5.485 5.437 5.389 5.343 5.297 5.251 5.206 5.162 5.119	4.210 6.210 0.149 6.059 6.030 5.971 5.914 5.857 5.802 5.747 5.093 5.339	9 	10 7.360 7.274 7.189 7.105 7.024 6.943 6.864 6.786 6.786 6.716 6.355 6.561
x	1 0.943 0.943 0.937 0.937 0.937 0.937 0.932 0.930 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.929 0.928	2 1.833 1.827 1.321 1.314 1.503 1.725 1.789 1.789 1.789 1.777 1.775 1.775 1.755 1.755 1.755 1.755	2. 673 2. 661 2. 661 2. 624 2. 636 2. 624 2. 612 2. 601 2. 539 2. 577 2. 566 2. 554 2. 543 2. 531 2. 531	4 3.465 3.465 3.426 3.426 3.426 3.426 3.426 3.426 3.426 3.349 3.331 3.312 3.294 3.276 3.255 3.240 3.222	UL LIFE 5 4.212 4.184 4.135 4.128 4.100 4.073 4.046 4.073 4.046 4.019 3.993 3.993 3.994 3.941 3.915	(N YEÀRS 6 4.9917 4.879 4.841 4.304 4.767 4.730 4.674 4.674 4.674 4.658 4.554 4.554 4.554 4.520 4.486 4.53	7 5.582 5.533 5.485 5.437 5.389 5.343 5.297 5.251 5.204 5.162 5.119 5.075	4 6.210 0.149 0.089 0.089 0.030 5.971 5.914 5.802 5.802 5.747 5.802 5.339 5.557 5.557 5.535	9 	10 7.360 7.274 7.189 7.105 7.024 6.943 6.786 6.786 6.786 6.786 6.561 6.489 6.418 6.343
x	1 0.943 0.941 0.937 0.937 0.935 0.935 0.932 0.925 0.925 0.925 0.925 0.925 0.925 0.915 0.913	2 1.833 1.827 1.321 1.314 1.803 1.902 1.759 1.775 1.775 1.755 1.755 1.747	EXP(3 2.673 2.661 2.648 2.636 2.624 2.612 2.612 2.601 2.539 2.577 2.506 2.554 2.554 2.554 2.531 2.520 2.539	ECTED USER 4 3.465 3.445 3.426 3.427 3.327 3.327 3.2276 3.225 3.226 3.226 3.227 3.2276 3.2276 3.226 3.2276 3.2276 3.226 3.2276 3.2076 3	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073 4.046 4.019 3.993 3.995 3.9941 3.9915 3.890 3.865 5.240	IN YEARS 6 4.917 4.279 4.304 4.727 4.730 4.674 4.730 4.674 4.58 4.558 4.558 4.554 4.520 4.486 4.553 4.455 4.455 4.455	7 5.582 5.533 5.485 5.437 5.389 5.343 5.297 5.251 5.204 5.162 5.162 5.119 5.075 5.033 4.991 4.950	4 4.210 0.149 0.059 0.030 5.971 5.914 5.857 5.802 5.747 5.802 5.747 5.339 5.557 5.424 5.424 5.433	9 	10 7.540 7.274 7.189 7.105 7.024 6.943 6.864 6.786 6.786 6.716 6.489 6.418 6.343 6.279
x	1 0.943 0.943 0.937 0.937 0.937 0.937 0.932 0.930 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.929 0.928	2 1.833 1.827 1.321 1.314 1.503 1.725 1.789 1.789 1.789 1.777 1.775 1.775 1.755 1.755 1.755 1.755	2. 673 2. 661 2. 661 2. 624 2. 636 2. 624 2. 612 2. 601 2. 539 2. 577 2. 566 2. 554 2. 543 2. 531 2. 531	4 3.465 3.465 3.426 3.426 3.426 3.426 3.426 3.426 3.426 3.349 3.331 3.312 3.294 3.276 3.255 3.240 3.222	UL LIFE 5 4.212 4.184 4.128 4.100 4.073 4.046 4.019 3.993 3.967 3.941 3.9515 3.890 3.890 3.865	(N YEÀRS 6 4.9917 4.879 4.841 4.304 4.767 4.730 4.674 4.674 4.674 4.658 4.554 4.554 4.554 4.520 4.486 4.53	7 5.582 5.582 5.33 5.485 5.437 5.389 5.343 5.297 5.251 5.204 5.162 5.162 5.179 5.075 5.033 4.991	4 4 4 4 4 4 4 4 4 4 4 4 4 4	9 5.802 6.722 6.354 6.555 6.447 6.379 6.312 6.247 6.312 6.247 6.312 6.247 5.995 5.995 5.935	10 7.340 7.274 7.189 7.105 7.024 6.943 0.864 6.780 6.780 6.561 6.489 6.418 6.343
x	1 0.943 0.941 0.937 0.937 0.935 0.935 0.932 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.929 0.928 0.929 0.928 0.929 0.920 0.929	2 1.833 1.827 1.321 1.314 1.803 1.796 1.789 1.789 1.777 1.777 1.765 1.759 1.755 1.747 1.741	EXP 3 2.673 2.661 2.648 2.636 2.624 2.612 2.612 2.612 2.539 2.577 2.566 2.531 2.531 2.531 2.539 2.539 2.539 2.539 2.539	ECTED USEF 4 3.465 3.445 3.426 3.426 3.426 3.426 3.426 3.426 3.349 3.349 3.349 3.349 3.349 3.349 3.349 3.321 3.276 3.225 3.222 3.204 3.137	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073 4.044 4.019 3.993 3.997 3.975 3.890 3.875 3.755 3.755 3.755 3.755 3.755 3.755 3.7555 3.7555 3.7555 3.75555 3.7555555 3.7555555555555555555555555555555555555	IN YEARS 6 4.917 4.879 4.841 4.304 4.727 4.730 4.747 4.730 4.747 4.730 4.747 4.758 4.5	7 5.582 5.533 5.485 5.437 5.389 5.343 5.3297 5.204 5.162 5.162 5.162 5.162 5.075 5.075 5.075 5.033 4.991 4.909	4 6.210 0.149 6.089 6.030 5.971 5.914 5.857 5.802 5.747 5.802 5.747 5.039 5.557 5.577 5.577 5.577 5.577 5.577 5.577 5.5777 5.5777 5.5777 5.5777 5.5777 5.57777 5.577777 5.57777777	9 	10 7.340 7.274 7.189 7.105 7.024 6.943 6.945 6.9436 6.9436 6.9436 6.9456 6.94566 6.94566 6.94566666666666666666666
x	1 0.943 0.941 0.937 0.937 0.935 0.935 0.932 0.925 0.925 0.924 0.925 0.925 0.925 0.925 0.915 0.915 0.913 0.911 0.911 0.919	2 1.833 1.827 1.321 1.321 1.314 1.803 1.922 1.789 1.789 1.789 1.783 1.777 1.771 1.775 1.755 1.755 1.747 1.741 1.736	EXP 3 2.673 2.661 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.651 2.648 2.651 2.554 2.554 2.559 2.549 2	ECTED USEF 4 3.465 3.445 3.426 3.427 3.365 3.249 3.276 3.276 3.255 3.240 3.222 3.204 3.137 3.212 3.226 3.226 3.226 3.226 3.226 3.227 3.226 3.217 3.276 3.226 3.226 3.204 3.276 3.276 3.276 3.277 3.276 3.276 3.276 3.276 3.276 3.277 3.276 3.276 3.276 3.276 3.276 3.276 3.276 3.276 3.276 3.276 3.2776 3.276 3.276 3.276 3.276 3.276 3.276 3.276 3.276 3.276 3.2776 3.276 3.276 3.276 3.276 3.276 3.276 3.2776 3.2776 3.2776 3.2776 3.2776 3.2776 3.2776 3.2776 3.2776 3.2776 3.2776 3.2776 3.2776 3.77776 3.777777777777777777777777777777777777	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073 4.046 4.019 3.993 3.994 3.994 3.994 3.994 3.994 3.995 3.890 3.865 5.240 3.815 3.791	(N YEARS) 6 4.917 4.879 4.841 4.304 4.727 4.730 4.652 4.652 4.526 4.526 4.526 4.526 4.526 4.653 4.520 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653 4.653	7 5.582 5.583 5.485 5.437 5.389 5.343 5.343 5.3297 5.3251 5.206 5.162 5.119 5.075 5.075 5.033 4.991 4.909 4.863	4 6.210 0.149 6.059 6.030 5.971 5.914 5.957 5.802 5.747 5.802 5.747 5.827 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.557 5.802 5.747 5.359 5.557 5.802 5.557 5.802 5.747 5.359 5.557 5.802 5.747 5.359 5.557 5.802 5.747 5.359 5.557 5.802 5.747 5.557 5.802 5.747 5.557 5.802 5.747 5.557 5.802 5.747 5.557 5.802 5.747 5.557 5.802 5.747 5.557 5.557 5.802 5.747 5.557 5.802 5.747 5.557 5.802 5.747 5.557 5.577 5.577 5.577 5.577 5.577 5.577 5.577 5.5777 5.5777 5.5777 5.5777 5.5777 5.57777 5.577777 5.57777777	9 4.802 6.722 6.354 6.55 6.447 6.379 6.312 6.247 6.312 6.247 5.795 5.935 5.935 5.735 5.817 5.759	10 7.340 7.274 7.189 7.105 7.024 6.943 6.943 6.943 6.786 6.786 6.786 6.786 6.561 6.489 6.418 6.27% 6.211 6.145
x	1 0.943 0.943 0.937 0.937 0.937 0.937 0.937 0.932 0.925 0.925 0.928 0.925 0.928 0.925 0.927	2 1.833 1.827 1.321 1.314 1.203 1.202 1.739 1.783 1.777 1.775 1.775 1.755 1.755 1.755 1.765 1.755 1.765 1.765 1.765 1.765 1.765 1.765 1.765 1.776 1.776 1.776 1.776 1.776 1.776 1.776 1.776 1.776 1.776 1.776 1.776 1.775 1.776 1.7750 1.7750 1.77	2.673 2.661 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.539 2.554 2.554 2.554 2.554 2.531 2.539 2.539 2.539 2.539 2.698 2.698 2.698	ECTED USEF 4 3.465 3.426 3.427 3.351 3.276 3.276 3.222 3.204 3.222 3.204 3.222 3.204 3.127 3.226 3.226 3.226 3.226 3.2276 3.226 3.226 3.226 3.226 3.2276 3.226 3.226 3.226 3.2276 3.226 3.226 3.2276 3.226 3.206 3.2276 3.226 3.207 3.206 3.2276 3.207 3.206 3.2276 3.207 3.207 3.207 3.207 3.275 3.207 3.275 3.207 3.275 3.207 3.275 3.207 3.275 3.207 3.275 3.207 3.275 3.207 3.275 3.207 3.107 3.107 3.107 3.107 3.107 3.170 3.170 3.170	UL LIFE 5 4.212 4.184 4.135 4.128 4.128 4.100 4.073 4.046 4.073 4.046 4.019 3.993 3.994 3.9941 3.947 3.941 3.947 3.747 3.7	 X YEARS 6 4.917 4.279 4.304 4.727 4.730 4.674 4.528 4.524 4.520 4.453 4.520 4.520 4.357 4.355 4.324 	7 5.582 5.583 5.485 5.485 5.437 5.389 5.343 5.297 5.251 5.204 5.162 5.162 5.162 5.175 5.075 5.033 4.991 4.909 4.863 4.829	4 6.210 0.149 6.089 6.089 6.030 5.971 5.914 5.957 5.802 5.747 5.802 5.747 5.802 5.747 5.802 5.527 5.527 5.527 5.527 5.527 5.527 5.527 5.527 5.527	9 5.802 6.722 6.354 6.555 6.447 6.379 6.312 6.247 6.312 6.247 5.735 5.735 5.735 5.817 5.759 5.762	10 7.360 7.274 7.189 7.105 7.024 6.943 6.943 6.943 6.786 6.786 6.786 6.786 6.786 6.489 6.418 6.343 6.275 6.211 6.145 6.079
x	1 0.943 0.941 0.937 0.937 0.935 0.935 0.932 0.925 0.925 0.924 0.925 0.925 0.925 0.925 0.915 0.915 0.913 0.911 0.911 0.919	2 1.833 1.827 1.321 1.314 1.803 1.902 1.759 1.789 1.783 1.777 1.775 1.775 1.755 1.755 1.755 1.747 1.747 1.741 1.730 1.72	EXP(3 2.673 2.661 2.648 2.539 2.554 2.554 2.559	ECTED USER 4 3.465 3.445 3.426 3.427 3.331 3.312 3.276 3.225 3.226 3.226 3.226 3.227 3.204 3.127 3.227 3.204 3.127 3.204 3.217 3.217 3.276 3.227 3.204 3.127 3.204 3.217 3.217 3.217 3.227 3.227 3.227 3.217 3.276 3.227 3.204 3.127 3.276 3.255 3.204 3.137 3.127 3.276 3.255 3.217 3.127 3.276 3.217 3.276 3.217 3.276 3.217 3.276 3.217 3.276 3.217 3.276 3.217 3.276 3.217 3.217 3.276 3.217 3.217 3.276 3.217 3.217 3.217 3.217 3.217 3.217 3.276 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.117 3.1170 3.1170	UL LIFE 5 4.212 4.184 4.154 4.128 4.046 4.019 3.993 3.9941 3.9941 3.9941 3.9941 3.741 3.741	IN YEARS 6 4-917 4-879 4-841 4-304 4-727 4-730 4-674 4-674 4-658 4-528 4-528 4-528 4-528 4-528 4-528 4-520 4-455 4-520 4-455 4-520 4-357 4-355 4-355 4-324 4-292	7 5.582 5.533 5.485 5.437 5.389 5.343 5.297 5.251 5.204 5.162 5.162 5.162 5.162 5.162 5.162 5.179 5.075 5.075 5.033 4.909 4.863 4.829 4.737	4 4.210 0.149 0.059 0.030 5.971 5.914 5.857 5.802 5.747 5.802 5.747 5.802 5.747 5.802 5.747 5.802 5.747 5.802 5.857 5.802 5.857 5.802 5.857 5.802 5.857 5.802 5.857 5.802 5.202	9 	10 7.540 7.274 7.189 7.105 7.024 6.943 6.864 6.786 6.786 6.786 6.786 6.418 6.355 6.561 6.489 6.418 6.354 6.279 6.211 6.145 6.079 6.015
x	1 0.943 0.941 0.937 0.937 0.937 0.935 0.932 0.925 0.925 0.925 0.925 0.925 0.917 0.915 0.913 0.911 0.907 0.905 0.903	2 1.833 1.827 1.321 1.314 1.803 1.794 1.789 1.789 1.789 1.789 1.789 1.785 1.755 1.755 1.755 1.765 1.755 1.761 1.730 1.730 1.725 1.718	EXP 3 2.673 2.661 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.648 2.536 2.537 2.566 2.534 2.534 2.534 2.539 2.539 2.648 2.539 2.554 2.539 2.543 2.539 2.549 2.447 2.445 2.455 2	ECTED USEF 4 3.465 3.445 3.426 3.427 3.331 3.327 3.222 3.226 3.222 3.226 3.226 3.227 3.226 3.227 3.226 3.227 3.227 3.227 3.226 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.227 3.217 3.117 3.117 3.119	UL LIFE 5 4.212 4.184 4.154 4.128 4.100 4.073 4.044 4.019 3.993 3.993 3.9941 3.9947 3.9941 3.9947 3.9941 3.9947 3.9941 3.9947 3.9941 3.9947 3.9941 3.9947 3.9941 3.9947 3.9941 3.9947 3.9941 3.9947 3.747 3.743 3.719	IN YEARS 6 4.917 4.879 4.841 4.304 4.727 4.304 4.674 4.674 4.658 4.556 4.556 4.556 4.555 4.355 4.355 4.355 4.355 4.251	7 5.582 5.533 5.485 5.437 5.389 5.443 5.343 5.297 5.204 5.102 5.102 5.102 5.103 5.075 5.033 4.909 4.863 4.829 4.737 4.751	4 6.210 0.149 6.089 6.089 6.030 5.971 5.914 5.957 5.802 5.747 5.802 5.747 5.802 5.747 5.802 5.527 5.527 5.527 5.527 5.527 5.527 5.527 5.527 5.527	9	10 7. J. 60 7. 274 7. 189 7. 105 7. 024 6. 943 6. 243 6. 243 6. 243 6. 243 6. 243 6. 243 6. 243 6. 243 6. 243 6. 256 6. 211 6. 145 6. 015 5. 9' 1
x	1 0.943 0.941 0.937 0.937 0.937 0.935 0.935 0.932 0.928 0.929 0.928 0.928 0.928 0.928 0.928 0.929 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.930 0.937 0.935 0.937 0.935 0.9310 0.9913 0.9913 0.9913 0.993 0.993 0.9913 0.9913 0.993 0.993 0.9913 0.993 0.993 0.9910 0.993 0.9910 0.993 0.9910 0.993 0.993 0.9910 0.993 0.993 0.9910 0.993 0.993 0.9910 0.993 0.993 0.9910 0.993 0.9910 0.993 0.9930 0.9930 0.9930 0.9930 0.9930 0.9930 0.9930 0.9930 0.9930 0.9930 0.9930 0.99300 0.99300 0.99300 0.9930000000000	2 1.833 1.827 1.321 1.314 1.803 1.796 1.789 1.789 1.789 1.777 1.775 1.755 1.755 1.755 1.747 1.765 1.730 1.725 1.718 1.713	EXP 3 2.673 2.661 2.648 2.654 2.554 2.554 2.509 2.448 2.448 2.448 2.509 2.448 2.444 2.444	ECTED USEF 4 3.465 3.445 3.426 3.426 3.426 3.426 3.426 3.349 3.349 3.349 3.349 3.349 3.349 3.349 3.349 3.349 3.349 3.349 3.349 3.349 3.3276 3.222 3.204 3.137 3.170 3.102	UL LIFE 5 4.212 4.124 4.128 4.100 4.073 4.044 4.073 4.044 4.019 3.993 3.994 3.974 3.747 3.747 3.749 3.945 4.974 3.9746 3.9	 N YEARS 6 917 679 641 304 74730 674 674<!--</td--><td>7 5.582 5.533 5.485 5.437 5.389 5.445 5.437 5.389 5.437 5.3297 5.204 5.162 5.162 5.162 5.162 5.162 5.162 5.162 5.162 5.033 4.991 4.909 4.863 4.829 4.737 4.751 4.712</td><td>4 6.210 0.149 6.089 6.030 5.971 5.714 5.857 5.802 5.747 5.802 5.747 5.339 5.557 5.237 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172</td><td>9 </td><td>10 7.340 7.274 7.189 7.105 7.024 6.943 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 7.947 6.945 7.947 6.945 7.9477 7.9477 7.94777 7.947777777777</td>	7 5.582 5.533 5.485 5.437 5.389 5.445 5.437 5.389 5.437 5.3297 5.204 5.162 5.162 5.162 5.162 5.162 5.162 5.162 5.162 5.033 4.991 4.909 4.863 4.829 4.737 4.751 4.712	4 6.210 0.149 6.089 6.030 5.971 5.714 5.857 5.802 5.747 5.802 5.747 5.339 5.557 5.237 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172	9	10 7.340 7.274 7.189 7.105 7.024 6.943 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 6.941 6.945 7.947 6.945 7.947 6.945 7.9477 7.9477 7.94777 7.947777777777
x	1 0.943 0.943 0.937 0.937 0.937 0.935 0.932 0.925 0.925 0.925 0.925 0.925 0.915 0.915 0.915 0.915 0.913 0.911 0.909 0.907 C.905 0.903 0.901 0.999	2 1.833 1.827 1.321 1.321 1.314 1.803 1.902 1.789 1.789 1.789 1.789 1.777 1.771 1.775 1.775 1.755 1.755 1.747 1.765 1.730 1.724 1.713 1.707	EXP 3 2.673 2.661 2.648 2.539 2.554 2.539 2.543 2.539 2.545 2.545 2.445 2.445 2.445 2.455 2.454 2.455 2	ECTED USEF 4 3.465 3.445 3.426 3.427 3.351 3.276 3.227 3.226 3.226 3.227 3.226 3.227 3.226 3.227 3.226 3.227 3.226 3.227 3.227 3.217 3.276 3.227 3.217 3.217 3.276 3.227 3.226 3.226 3.227 3.217 3.217 3.276 3.227 3.217 3.217 3.276 3.227 3.217 3.217 3.276 3.227 3.217 3.217 3.217 3.276 3.227 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.276 3.217 3.117 3	UL LIFE 5 4.212 4.184 4.135 4.128 4.100 4.073 4.046 4.073 4.046 4.073 3.993 3.9941 3.9941 3.9941 3.9941 3.9941 3.9941 3.741 3.741 3.743 3.719 3.446 3.473	IN YEARS 6 4.917 4.879 4.841 4.304 4.727 4.730 4.652 4.652 4.526 4.526 4.526 4.486 4.526 4.486 4.526 4.486 4.527 4.355 4.355 4.325 4.251 4.231 4.200	7 5.582 5.533 5.485 5.437 5.389 5.343 5.343 5.343 5.3297 5.204 5.162 5.162 5.162 5.162 5.162 5.199 5.075 5.075 5.033 4.991 4.909 4.863 4.829 4.737 4.751 4.712 4.674	4 6.210 0.149 6.089 6.030 5.971 5.914 5.955 5.802 5.747 5.827 5.802 5.747 5.802 5.747 5.827 5.802 5.747 5.827 5.802 5.747 5.827 5.802 5.747 5.827 5.827 5.827 5.827 5.827 5.827 5.827 5.827 5.827 5.827 5.827 5.829 5.827 5.237 5.237 5.237 5.237 5.237 5.237 5.1747 5.1747 5.175	9 4.802 6.722 6.354 6.55 6.379 6.379 6.379 6.312 6.247 6.379 6.312 6.247 5.955 5.955 5.735 5.817 5.762 5.446 5.791 5.517 5.517	10 7.340 7.274 7.189 7.105 7.024 6.943 6.943 6.943 6.943 6.943 6.786 6.786 6.786 6.561 6.489 6.418 6.27% 6.418 6.27% 6.211 6.145 6.079 6.015 5.9% 1 5.889 5.828
x	1 0.943 0.941 0.937 0.937 0.935 0.932 0.930 0.925 0.925 0.925 0.925 0.925 0.925 0.915 0.915 0.915 0.915 0.915 0.913 0.911 0.907 0.905	2 1.833 1.827 1.321 1.314 1.902 1.729 1.783 1.777 1.775	EXP 3 2.673 2.661 2.648 2.539 2.554 2.539 2.543 2.539 2.545 2.545 2.445 2.445 2.445 2.455 2.454 2.455 2	ECTED USER 4 3.465 3.445 3.426 3.427 3.331 3.312 3.276 3.227 3.226 3.226 3.227 3.226 3.226 3.227 3.204 3.137 3.117 3.127 3.276 3.227 3.204 3.137 3.117 3.127 3.217 3.217 3.276 3.227 3.204 3.137 3.117 3.117 3.127 3.217 3.217 3.276 3.217 3.217 3.217 3.217 3.217 3.276 3.217 3.217 3.217 3.217 3.217 3.217 3.276 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.217 3.107 3.070	UL LIFE 5 4.212 4.124 4.128 4.100 4.073 4.044 4.073 4.044 4.019 3.993 3.994 3.974 3.747 3.747 3.749 3.945 4.974 3.9746 3.9	IN YEARS 6 4.917 4.879 4.841 4.304 4.727 4.730 4.658 4.658 4.554 4.523 4.554 4.520 4.486 4.653 4.420 4.355 6.324 4.261 4.200 4.170	7 5.582 5.533 5.485 5.437 5.389 5.343 5.343 5.343 5.343 5.3297 5.204 5.162 5.119 5.075 5.075 5.033 4.929 4.909 4.863 4.929 4.737 4.751 4.712 4.674	4 6.210 0.149 6.089 6.030 5.971 5.714 5.857 5.802 5.747 5.802 5.747 5.339 5.557 5.237 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172 5.172	9	10 7.360 7.274 7.189 7.105 7.024 6.943 6.947 7.947 6.947 7.9477 7.9477 7.94777 7.947777777777

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TABLE 1 RETURN ON INVESTMENT PERCENTAGE BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW) AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY O1/06/84

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*********		********		XPECTED U						
X R.O.I.	11	12	13		15	16	17	18	19	20
6.00	7.887	8.384	8.853	9.295	9.712	10,106	10.477	10.525	11.158	11.470
6.25	7.737	8.270	8.725	9.153	1 9.556	9.935	10.291	10.027	10.943	11.241
6.50	7.689	8.159	8.600	9.014	9.403	9.768	10.111	10.432	10.735	11.019
6.75	7.595	8.050	8.477	8.375	9.253	9.405	9.935	10.243	10.532	10.803
7.00	7.499	7.943	8.358	8.745	9.105	9.447	. 9.763	10.059	10.336	10.594
7.25	7.406	7.838	5.240	8.416	3.966	,	9.595	9.480	10.145	10.391
7.50	7.315	7.735	8.125	8.489	8.827	9.142	9.434	9.706	9.959	10.194
7.75	7.226	7.635	5.014	5.365	8.692	8.995	9.276	9.537	9.779	10.004
8.00	7.139	7.536	7,904	3.244	8.559	8.851	9.122	9.372	9.504	9.813
8.25	7.053	7.439	7.796	s.126	5.430	8.712	5.971	9.212	9.433	9.638
5.5C	6.969	7 . 345	7.691	5.010	8.304	3.575	8.225	7.055	9.208	9.403
8.75	6.836	7.252	7.582	7.597	8.181	5.442	5.633	3.904	9.107	9.294
9.00	6.305	7.161	7.487	7.734	8.061	5.313	8.544	8.756	8.950	9.127
9.25	6.726	7.071	7.388	7.678	7,943	8.150	8.403	5.012	8.798	8.962
9.50	6.547	6.924	7.291	7.572	7.825	8.062	3.270	8.671	2.650	5.812
9.75	6.570	6.398	7.196	7.468	7.716	7.942	±.147	9.335	8.505	8.001
19.00	6.495	6.814	7.103	7.367	7.606	7.324	8.022	3.201	8.305	8.514
10.25	6.421	6.731,		7.247	7.499	7.707	7.599	3-072	8.228	8_370
10.50 10.75	6.348 6.277	6.050 6.570	5.923 6.836	7.170 7.075	7.394 7.291	7.596 7.486	7.779 7.603	7.945 7.222	8.095 7.966	8.231 8.095
					7.491		(+00)			
11.00 11.25	6.207 6.138	6.492 6.416	6.750	6.982	7.194	7.379	7-547			7.983
11.50	5.070	0.410	6.466 6.533	5.291 6.301	7.093 6.997	7.274 7.172	7.438 7.329	7.554		7,710
11.75	6.003	0.267	6.5ú3	6.714	6.903	7.072		7.353		
4422224443	*******			PECTED US	FTIIIIII EFUL LIFE	JARANARAN In Years	*****			******
7				*******						
e.g.t.	21	22	23	24	25	26	27	28	29	30
5.00	11.764	12.042	12.303	12.550	:2.783	13.003				13.765
6.25	11-521	11.784	12.032	12.266	12.485	12.692		13.070	13.242	13.404
6.50 6.75	11.285	11.535	11.770	11.991	12.198	12.392		12.746	12.907	13.059
		11.294	11.517	11.725	11.921			12.436	12.566	12.727
7.00 7.25	10.836 10.621	11.061 10.236	11.272	11.449	11.654	11.826	11.937	12.137	12.275	
7.50	10.413	10.617	11.036 10.307	11.222	11.396	11.558		11.850	11.931	12.104
7.75	10.212	10.406	10.555	10.953 10.752	11.147 10.907	11_299 11.050		11.573 11.307 -	17.696	11.810 11.529
5.00	10.617	10.201	10.371	10.529	10.675	10.310				
8.25	9.827	10.002	10.164	10.313	10.451	10.578		11.051 10.204	11.158 10.905	11.252
8.50	7.644	9.510	9,763	10.104	10.234	10.354		10.566	10.540	10.997
8.75	9.465	9.623	9.769	9.902	10.025	10.133	10.242	10.337	10.425	10.508
7.00	9.292	9.442	9.580	9.737	9.823	9.929	10.027	10.110	10.172	10.274
9.25 9.50	9.124 1.961	9.267	9.398	9.517	9.627	9.727	9.819	9.903	9.980	12.050
9.75	5.503	9.097 3.932	9.221	9-334	9.438	9.532	7.618	9.097	9.769	9.835
			9.049	9.157	9.254	9.343	9.425	9.493	9.505	9.627
10.00 10.25	5.49 5.499	3.772 8.616	8.343 3.722	5.755 5.515	9.077	9.101	9.237	9.307	9.370	9.427
10.50	8.354	3.465	2.366	5.557	3.905 8.739	8.984 3.814	9.050	9.121	9.130	9.234
10.75	8.212	8.318	5.414	8.500	8.575	8.643	5.851 8.712	3.742	8.997 8.821	9.047 8.665
11.00	8.075	2.176	5.266	8.348	3.422	8.488	8.548	5.402	3.650	3.694
11.25 11.50		3.037	6.123°	3.201	3.270	9.333	5.334	3.440	5.435	8.525
11.10										
	7.811	7.903	7.984	3.055	5.124	8.183	8.236	3.285	8.326	٤.3٥-
11.75	7.411	7.903 7.772	7.984 7.850	3.055 7.919						

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TABLE 1 -------

RETURN ON INVESTMENT PERCENTAGE BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW) AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY OT/06/84

12.00 0.833 1.270 2.402 1.017 3.403 4.111 4.464 4.284 5.228 3.633 12.00 0.837 1.487 2.332 3.034 3.333 4.035 4.032 4.032 5.238 5.345 12.05 0.847 1.487 2.331 2.035 3.034 3.335 4.035 4.433 4.722 5.035 5.140 5.445 5.132 5.445 5.135 5.435 5.135 5.435 5.135 5.435 5.135 5.435 5.135 5.435 5.135 5.435 5.135 5.435 5.135 5.435 </th <th></th> <th>********</th> <th>*********</th> <th></th> <th>-</th> <th></th> <th></th> <th></th> <th></th> <th>*********</th> <th></th>		********	*********		-					*********	
12.00 0.857 1.457 1.405 1.417 1.435 1.425 <th< th=""><th>R.O.I.</th><th>1</th><th>2</th><th></th><th>4</th><th></th><th>6</th><th> 7</th><th></th><th></th><th></th></th<>	R.O.I.	1	2		4		6	 7			
12.25 0.897 1.485 2.392 1.021', 3.183 4.082 4.225 5.278 5.573 12.75 0.887 1.877 2.331 1.064 4.085 4.282 5.278 5.481 13.00 0.885 1.467 2.331 2.979 3.533 4.085 4.482 5.282 5.128 5.481 13.00 0.885 1.468 2.1971 3.979 4.438 4.755 5.084 3.372 13.00 0.887 1.463 2.476 3.479 3.433 3.399 4.728 4.752 5.084 3.372 14.00 0.877 1.441 2.122 2.911 3.439 4.324 4.324 4.972 5.287 14.00 0.877 1.441 2.122 2.911 3.433 3.402 4.324 4.432 4.922 5.343 14.00 0.877 1.441 2.122 2.911 3.433 3.422 4.333 5.421 4.922 5.287 14.00 0.877 1.441 2.142 2.142 1.412 4.422 4.322<											
12.50 0.887 1.479 2.131 1.000 1.334 4.054 4.402 4.840 5.248 5.248 13.00 0.885 1.468 2.261 2.971 3.137 4.002 4.421 4.799 5.112 5.426 13.00 0.885 1.468 2.361 2.971 3.171 5.070 4.335 4.421 4.979 5.132 5.426 13.75 0.887 1.4657 2.361 2.974 3.431 3.589 4.235 4.423 4.979 5.247 14.00 0.877 1.447 2.322 2.914 3.433 3.889 4.235 4.424 4.444 5.077 14.75 0.877 1.447 2.322 2.914 3.433 3.889 4.235 4.424 4.447 <td></td> <td></td> <td></td> <td>2.402</td> <td></td> <td></td> <td>4.082</td> <td></td> <td></td> <td></td> <td>5.593</td>				2.402			4.082				5.593
12.75 0.887 1.874 2.271 2.990 3.539 4.026 4.437 4.440 5.130 5.441 13.00 0.885 1.668 2.351 2.974 3.917 3.992 4.423 4.709 5.132 5.427 13.25 0.887 1.668 2.331 2.929 3.436 3.975 4.333 4.972 4.423 4.709 5.132 5.247 14.00 0.877 1.447 2.332 2.993 3.433 3.897 4.234 4.600 4.000 4.000 4.000 4.000 5.164 4.521 4.111 4.111 4.111 4.125 4.111							4.054	4.492	4.382		5.530
1123 1.663 1.231 2.959 1.664 3.970 1.335 .718 5.038 5							4.026				5.481
13.20 1.437 1.437 1.437 1.433 1.433 1.433 1.432 1.432 1.432 1.432 1.432 1.432 1.432 1.432 1.444 2.331 2.294 3.433 3.389 4.234 4.444 3.244 14.00 0.477 1.444 2.332 2.344 3.342 4.234 4.444 3.244 14.23 0.477 1.444 2.332 2.436 3.352 3.410 4.424 4.434 3.441 15.00 0.470 1.626 2.233 2.355 3.132 3.772 4.140 4.444 5.017 15.00 0.4644 1.626 2.235 2.357 3.240 4.094 4.477 5.017 15.00 0.4644 1.401 2.255 2.372 3.2433 3.496 4.027 4.477 4.477 14.40 0.4465 1.403 2.247 3.247 4.039 4.147 4.477 15.00 2.217 2.724 3.3490 4.029 4.144 4.477 4.457 14.00 0.455	13.00	0.835	1.568	2.301	2.974	3.517	3.993			5.132	5.426
13.75 0.879 1.482 2.331 2.929 3.434 1.915 4.321 4.678 4.992 5.267 14.00 0.877 1.447 2.322 2.914 3.433 3.389 4.236 4.609 5.144 14.25 0.873 1.644 2.312 2.392 3.443 3.192 4.236 4.602 5.146 14.65 0.877 1.644 2.312 2.436 3.972 4.160 4.622 4.433 5.087 15.00 0.470 1.622 2.237 2.455 1.332 3.772 4.160 4.477 4.172 4.071 15.00 0.464 1.610 2.235 2.312 3.773 4.169 4.437 4.467 4.779 15.00 0.464 1.610 2.237 2.474 3.433 3.646 4.057 4.237 4.467 4.437 4.437 15.00 0.462 1.600 2.217 2.741 3.648 4.057 4.267 4.274 4.437 14.230 0.4635 1.530 2.210 2.757	13.25	0.383	1.603	2.351	2.959	3.496	3.970	4.388		-	
LLDD LLDA LLDA <thlda< th=""> <thllda< th=""> LLDA LL</thllda<></thlda<>	13.50	0.881	1.657	2.341							
12.33 0.377 1.241 2.372 2.399 1.415 1.362 4.362 <td< td=""><td>13.75</td><td>0.879</td><td>1.652</td><td>2.331</td><td>2.929</td><td>3.454</td><td>3.915</td><td>4.321</td><td>4.078</td><td>4.992</td><td>2.207</td></td<>	13.75	0.879	1.652	2.331	2.929	3.454	3.915	4.321	4.078	4.992	2.207
1 1 2 302 2 302 3 323 4 24 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 4 4 7 7 5 6 4 4 7 7 5 6 4 4 4 7 7 5 6<	14.00	0.877	1.447	2.322	2.914	3.433	3.589				5.216
14.75 0.877 1.837 2.899 2.869 3.372 3.870 4.172 4.324 4.874 4.772 5.007 15.00 0.840 1.621 2.272 2.841 3.352 3.724 4.100 4.487 4.772 5.017 15.05 0.846 1.612 2.264 2.225 1.313 3.734 4.099 4.413 4.467 4.772 5.017 16.00 0.842 1.400 2.225 2.313 3.734 4.099 4.414 4.407 4.457 4.779 16.00 0.842 1.400 2.227 2.764 3.235 3.465 4.039 4.144 4.407 4.798 16.75 0.657 1.530 2.219 2.773 3.219 3.431 3.465 4.174 4.441 4.657 17.20 0.833 1.583 2.210 2.773 3.141 3.643 3.644 4.174 4.441 4.657 17.20 0.833 1.583 2.210 2.773 3.141 3.644 3.644 4.174 4.471 4.457											
13.00 0.470 1.426 2.233 2.355 3.352 3.724 4.180 4.487 4.772 5.017 13.00 0.480 1.421 2.274 2.841 3.332 3.735 4.129 4.431 4.725 4.931 13.00 0.864 1.415 2.242 2.313 3.734 4.407 4.937 14.00 0.862 1.405 2.2452 2.313 3.734 4.0457 4.447 4.477 14.00 0.462 1.405 2.235 2.778 3.251 3.645 4.059 4.447 4.467 4.771 14.00 0.4597 1.550 2.219 2.775 3.215 3.693 3.991 4.241 4.447 4.447 4.471 17.00 0.4595 1.585 2.210 2.773 3.143 3.549 3.223 4.107 4.451 4.457 17.00 0.4595 1.585 2.210 2.713 3.143 3.543 3.224 4.107 <td< td=""><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			-								
31.33 0.844 1.433 2.274 2.2441 3.132 3.1759 4.109 4.431 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.444 4.447 4.377 4.444 4.403 4.447 4.377 4.444 4.407 4.247 4.444 4.407 4.247 4.444 4.407 4.247 4.444 4.407 4.247 4.444 4.447 4.247 4.447 <	14.75	0.871	1.031	2, 293	2.369	3.372		• 4.192	4.524	4.814	3.007
31.33 0.844 1.433 2.274 2.2441 3.132 3.1759 4.109 4.431 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.443 4.444 4.447 4.377 4.444 4.403 4.447 4.377 4.444 4.407 4.247 4.444 4.407 4.247 4.444 4.407 4.247 4.444 4.407 4.247 4.444 4.447 4.247 4.447 <							3.784				5.017
15.75 0.224 1.610 2.235 2.312 1.203 1.705 4.041 4.379 4.047 4.379 10.00 0.322 1.603 2.246 2.772 3.235 3.460 4.039 4.344 4.077 4.237 10.25 0.430 1.430 2.237 2.772 3.235 3.430 4.539 4.537 4.755 10.75 0.851 1.530 2.219 2.770 3.231 3.414 3.404 4.467 4.451 4.464 4.701 17.00 0.855 1.580 2.201 2.743 3.149 3.569 3.922 4.207 4.451 4.647 17.00 0.855 1.580 2.201 2.743 3.141 3.564 3.942 4.774 4.451 4.477 4.451 4.477 4.451 4.477 4.451 4.477 4.451 4.477 4.451 4.477 4.451 4.477 4.451 4.477 4.451 4.477 4.477 4.451							3.752				
14.00 0.403 1.405 2.264 2.798 3.274 3.685 4.039 4.344 4.607 4.253 14.33 0.480 1.405 2.278 2.784 3.255 3.460 4.039 4.367 4.745 14.33 0.4557 1.550 2.219 2.757 3.215 3.451 3.951 4.224 4.457 4.451 4.457 17.00 0.4553 1.580 2.201 2.710 3.1121 3.563 3.892 4.174 4.411 4.617 17.50 0.4551 1.575 2.192 2.710 3.142 3.563 3.220 4.174 4.413 4.617 17.50 0.853 1.570 2.143 2.703 3.145 3.520 3.219 4.109 4.137 4.537 12.200 5.433 6.194 4.424 6.628 6.311 6.977 7.100 7.130 7.136 7.136 7.136 7.136 7.136 7.136 7.141 7.157											
12.23 0.430 1.400 2.217 2.776 3.255 3.430 4.307 4.567 4.745 14.50 0.4557 1.590 2.219 2.775 3.215 3.430 4.241 4.445 4.744 17.00 0.4557 1.580 2.201 2.730 3.199 3.565 3.922 4.207 4.451 4.457 17.00 0.4551 1.580 2.201 2.710 3.141 5.563 3.842 4.174 4.451 4.457 17.75 0.424 1.370 2.143 2.703 3.145 3.520 3.284 4.142 4.374 4.577 12.00 5.433 6.194 6.424 6.428 6.311 6.974 7.100 7.147 7.256 7.356 7.457 12.00 5.433 6.194 6.424 6.428 6.311 6.974 7.107 7.147 7.257 7.250 7.467 7.120 7.147 7.257 7.257 7.354 7.459 7.333 4.333 6.923 7.047 7.147 7.217 7.257 7.354 <td>15.75</td> <td>0.264</td> <td>1.610</td> <td>2.255</td> <td>2.512</td> <td>3.293</td> <td>3.707</td> <td>4.062</td> <td>4.379</td> <td>4.04/</td> <td>4.377</td>	15.75	0.264	1.610	2.255	2.512	3.293	3.707	4.062	4.379	4.04/	4.377
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	16.00	0.362		2.246							4.833
$\begin{array}{cccccccccccccccccccccccccccccccccccc$											
17.00 0.853 1.585 2.210 2.743 3.199 3.589 3.922 4.207 4.451 4.651 17.23 0.853 1.580 2.201 2.710 3.181 3.589 4.174 4.413 4.457 17.75 0.249 1.370 2.181 2.703 3.145 3.520 3.239 4.139 4.339 2.0.1. 11 12 13 14 15 16 17 1a 19 20 12.00 5.433 6.194 6.424 6.428 6.811 6.974 7.120 7.250 7.364 7.454 12.25 5.473 6.194 6.424 6.428 6.811 6.672 6.020 7.040 7.147 7.250 12.25 5.473 6.195 6.181 6.547 6.404 6.423 6.431 6.477 7.417 7.250 7.154 7.657 7.354 7.427 7.417 7.217 7.250 7.147 7.217 7.417 7.217 7.217 7.217 7.217 7.354 7.427 6.317 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
17.25 0.353 1.3630 2.201 2.730 3.423 3.523 3.624 4.424 4.374 4.417 17.50 0.459 1.370 2.183 2.703 3.145 3.523 3.624 4.142 4.374 4.575 17.75 0.849 1.370 2.183 2.703 3.145 3.520 1.639 4.109 4.339 4.534 EXPECTED USEFUL LIFE IN YEAKS 2	16.75	0.857	1.590	2.219	2.757	3.215	3.613	3.951	4.241	4.487	4.701
$\begin{array}{cccccccccccccccccccccccccccccccccccc$					2.743						
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			1.580		2-730	3.181					
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	5.973	6.121	6.346	0.020	G.211		7.019			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		5 310	0.053	6-270	6.447	6.433.		4.920	7-040	7.147	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		5.745	5.985	6.195	6.381	0.547			4.937	7.041	7.132
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	13.00	5.647	5.919	6-1-22	6.302	6-462	6.604	4.729	6.360	6.938	7.025
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	13.25	5.527									
14.005.4535.4605.8626.0026.1426.2656.3736.4676.5506.62314.255.3975.5995.7755.9315.0666.1856.2296.3306.4596.57014.505.3415.5335.7105.8615.9926.1066.2066.2946.3706.43714.755.2375.4795.6465.7925.9196.0296.1266.2046.2706.43715.065.2345.4215.5835.77245.2475.9546.0476.1266.2106.24315.055.1315.3635.7775.8915.9706.0426.1156.17415.505.1365.2345.4215.5835.7775.8915.9706.0426.11515.755.1315.3635.7775.8915.9706.0426.1156.17415.505.1305.4015.5745.7975.6035.9956.0346.09015.755.0795.2525.4015.5305.7495.5145.8775.92916.005.0295.1975.3425.4635.5755.0455.7495.5145.8775.92914.254.9775.1445.2855.4025.5115.0015.7495.5145.8025.85716.754.9315.6395.1735.2875.3355.4095.5415.3035.6555.70316.754.9335.065 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>6.299</td> <td></td> <td>6.547</td> <td></td> <td>6.739</td> <td>¢.319</td>						6.299		6.547		6.739	¢.319
14.005.4535.6605.8426.0026.1426.2656.3736.4676.5506.62314.255.3975.5995.7765.9315.0666.1856.2296.3806.4596.52914.505.3415.5335.7105.8615.9926.1066.2066.2946.3706.46914.755.2375.4795.6465.7925.9196.2296.1266.2106.2336.37714.755.2375.4795.6465.7925.9196.2296.1266.2106.2436.37715.065.2345.4215.8435.7245.8475.9546.0476.1266.1136.37715.255.1315.3635.7775.8135.9706.0426.1156.17415.505.1365.3075.4615.5755.6035.94215.8035.94515.755.0795.2525.4015.5305.6415.7335.94215.8035.7455.80216.005.0295.1975.3425.4635.5755.6635.7495.5135.7455.8025.85116.254.9315.6715.2255.4045.5115.6035.7495.5145.7555.8035.77516.754.3835.6395.1735.2575.3355.4095.5415.6075.6735.75516.754.3835.6395.1735.2575.3355.4095	13.75	5.510	5.723	5.910	6.075	6.220		6.459	6.557	· 6.644	6.720
14.505.3415.5335.7105.861 5.992 6.106 6.206 6.294 6.370 6.437 14.755.2375.4795.6465.7925.919 6.629 6.126 6.204 6.243 6.347 15.005.2345.4215.5935.7725.919 6.629 6.126 6.243 6.347 15.005.2345.4215.5935.7775.8315.970 6.042 6.128 6.178 5.257 15.255.1315.3075.4615.5745.7075.895 5.942 5.995 6.047 6.128 6.178 6.174 15.505.1305.3075.4615.5745.707 5.895 5.995 6.042 6.047 6.128 6.178 6.044 15.755.0775.2525.4015.5745.707 5.895 5.995 6.004 6.047 6.128 6.178 5.755 16.005.0295.1975.3425.4645.575 5.663 5.749 5.513 5.875 5.802 5.813 5.875 5.603 5.749 5.513 5.875 5.603 5.749 5.513 5.875 5.603 5.745 5.802 5.813 5.877 5.929 16.00 5.029 5.197 5.441 5.285 5.406 5.575 5.603 5.745 5.813 5.875 5.802 5.813 5.875 5.802 5.875 5.802 5.813 5.877 5.929 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>6.142</td> <td></td> <td></td> <td></td> <td>6.550</td> <td>0.023</td>						6.142				6.550	0.023
14.755.2875.4795.4445.7925.919 6.029 6.126 4.210 6.243 6.347 15.065.2345.4215.5835.7245.2675.954 6.047 6.128 6.128 6.174 15.255.1815.3635.5215.6535.7775.8315.970 6.042 6.113 6.174 15.505.1305.3075.4615.5945.7075.8015.995 5.969 6.034 6.047 15.755.0775.2525.4015.5305.6415.7385.94215.5035.755 6.007 16.005.0295.1975.3425.4645.5755.6635.7495.5125.8075.92916.254.9775.1445.2855.4065.5115.6015.6735.6225.8125.81215.504.9315.6395.1735.2225.3465.4475.5345.6075.6735.7225.75516.754.2835.6395.1735.2275.3355.4695.5415.5035.6555.70917.004.8364.9885.1185.2295.3245.4055.4755.5245.5755.57517.504.7454.3895.0125.1175.2065.2815.3465.4475.55717.504.7454.3895.0125.1475.2065.2815.3465.4475.42717.754.7004.6414.966 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>5.066</td><td>6.155</td><td>6.239</td><td></td><td></td><td>6.529</td></t<>						5.066	6.155	6.239			6.529
$\begin{array}{cccccccccccccccccccccccccccccccccccc$											0.437
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	14.75	5.237	5.479	5.646	5.792	5.919	6.029	6.126	6.210	0,243	6.367
$\begin{array}{cccccccccccccccccccccccccccccccccccc$											5.259
15.755.0795.2525.4015.5305.6415.7385.4215.5035.955 6.007 16.005.0295.1975.3425.4645.5755.6685.7495.5185.8755.92916.254.9795.1445.2855.40e5.5115.6015.5785.7495.5125.8225.85115.504.9315.6715.2225.3465.4475.5345.6075.6735.7225.77516.754.2835.6395.1735.2275.3355.4695.5415.5035.6555.70017.004.8364.9885.1155.2295.3245.4055.4755.5245.5555.70017.254.7904.9335.0655.1725.2645.3435.4105.4675.5155.55717.504.7454.3295.0125.1175.2065.2815.3665.4075.4475.42717.754.7004.6414.9605.0625.1485.2215.2835.3365.3315.413											6.174
16.00 3.029 3.197 5.342 5.465 5.575 5.665 5.749 5.51± 5.577 5.929 16.25 4.977 5.144 5.285 5.466 5.511 5.601 5.578 5.675 5.622 5.822 5.851 15.50 4.931 5.671 5.222 5.346 5.447 5.534 5.607 5.673 5.72± 5.775 16.75 4.833 5.639 5.173 5.227 5.335 5.469 5.541 5.503 5.655 5.700 17.00 4.836 4.988 5.115 5.229 5.324 5.405 5.475 5.524 5.524 5.555 5.700 17.25 4.790 4.938 5.065 5.172 5.264 5.343 5.410 5.467 5.515 5.557 17.50 4.745 4.389 5.012 5.117 5.206 5.281 5.346 5.407 5.447 5.447 5.447 5.447 17.75 4.700 4.641 4.966 5.062 5.148 5.221 5.283 5.336											
16.25 4.977 5.144 5.285 5.40e 5.511 5.601 5.745 5.822 5.851 15.50 4.931 5.671 5.222 5.346 5.447 5.534 5.607 5.673 5.722 5.775 16.75 4.283 5.639 5.173 5.257 5.335 5.469 5.541 5.503 5.555 5.700 17.00 4.336 4.988 5.115 5.229 5.324 5.405 5.475 5.514 5.503 5.555 5.700 17.25 4.790 4.933 5.065 5.172 5.264 5.343 5.410 5.467 5.515 5.557 17.50 4.745 4.329 5.012 5.117 5.206 5.281 5.346 5.407 5.417 5.427 17.75 4.700 4.641 4.960 5.062 5.148 5.221 5.283 5.334 5.417				-5.401	2.230	5.641	2°139	5.921	2.203	5.755	9°003
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		• •									
16.75 4.383 5.639 5.173 5.287 5.335 5.469 5.541 5.603 5.655 5.700 17.00 4.836 4.988 5.118 5.229 5.324 5.405 5.475 5.514 5.524 5.524 17.25 4.790 4.933 5.065 5.172 5.264 5.343 5.410 5.467 5.515 5.557 17.50 4.745 4.529 5.012 5.117 5.206 5.281 5.346 5.401 5.447 5.427 17.75 4.700 4.641 4.960 5.062 5.148 5.221 5.283 5.334 5.331 5.413											
17.00 4.336 4.988 5.115 5.229 5.324 5.405 5.475 5.524 5.524 5.524 17.25 4.790 4.938 5.065 5.172 5.264 5.343 5.410 5.467 5.515 5.557 17.50 4.745 4.529 5.012 5.117 5.206 5.281 5.346 5.401 5.447 5.427 17.75 4.700 4.641 4.966 5.062 5.148 5.221 5.283 5.336 5.331 5.413											
17.25 4.790 4.938 5.065 5.172 5.264 5.343 5.410 5.467 5.515 5.557 17.50 4.745 4.529 5.012 5.117 5.206 5.281 5.346 5.401 5.447 5.427 17.75 4.700 4.641 4.966 5.062 5.148 5.221 5.283 5.336 5.331 5.413	17.00	6.274	6 000								
17.50 4.745 4.529 5.012 5.147 5.206 5.281 5.346 5.401 5.447 5.427 17.75 4.700 4.641 4.906 5.062 5.148 5.221 5.283 5.336 5.331 5.413											
17.75 4.700 4.641 4.90G 5.062 5.148 5.221 5.283 5.336 5.3d1 5.413											
	17.75										5.612
	*********	*******	********	****							

TABLE 1

AETURN ON INVESTMENT PERCENTAGE BASED ON R.D.I. FACTOR (FACILITY COST/AVRG, ANNUAL CASH FLOW) AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY 01/06/84

*********	*********		-	XPECTED U	SEFUL LIF	E IN YEAR	\$			313333 3 5
T R.O.I.	21	22	23	24	25	26		 23	29	30
12.00	7.562	7.645	7.718	7.784		7.890		7.984	a n 2 7	8.055
12.25	7.442	7.521	7.591	7 453	7.843 7.709	7.759	7.803	7.842	7.377	7.908
12.50	7.326	7.401	7.447	7.526	7.579	7.620	7.667	7.704	7.737	7.700
12.75	7.212	7.283	7.347	7.403	7.453	7.497	7.536	7.571	7.402	7.629
12613	1.44.44	11203	(=276	11405	(**33	(• • • 1	10130	14411	1.100	1,000
13.00	7.102	7.170	7.230	7.283	7.330	7.372	7.409	7.441	7.470	7.495
13.25	5.994	7.059	7.116	7.166	7.211	7.250	7.235	7.316	7.343	7.367
13.50	6.889	6.951	7.035	7.053	7.095	7.132	7.165	7,194	7.219	7.242
13.75	6.787	6.845	6.897	6.942	6.982	7.017	7.048	7.075		7.120
			• • • •		•					
14+00	6.687	5.743	5.792	6.335	6.373	6.906	6.935	6.901	6.953	7.003
14.25	6.590	6.643	6.690	6.731	6.766	6.798	6.325	0.249	6.970	4.889
14.50	6.495	6.546	6-590	6.629	6.663	6.693	6.718	6.741	6.701	0.773
14.75	6.403	5==51	ć	6.530	5.562	5-590	6.615	6.030	6.654	6.673
						•				
15.00	6.312	6.359	6.399	4.434	6.444	6.491	6.514	6.534	6.551	
15.25	6-225	6.269	6.307	6.340		4.394		6.434	0.450	0.465
15.50	6.139	6.181	6.217	6.249	6.275	6.299	6.320	6.337	5.353	0.300
15.75	6.055	0.095	ć.130	3.159	6.185	6.208	5.227	6.243	a.25S	a.270
					_					
16.00	5.973	· ••011	6-044	6.073	6.097	6.118	6.136	6.152	6.186	6.177
16.25	5.893	5.930	5.961	5.988	6.011	6.031	6.045	6.063	4.076	6.087
16.50	5.815	5.850	5.850	5.905	5.927	5.940	5.962	5.970	51988	5.999
16.75	5.739	5.772	5.801	5.825	5.846	5.864	.5.879	5,892	5.903	5,913
		• • • •		.						
17.00	5.665	5-596	5.723	5.746	5.766	5.783	5.795		5.520	
17.25	5.592	5.622	5-648	5.670	5.689	5.705	5.712	5.730 5.052	5.740	
17.50	5-521	5.550	5-574	5.595	5.513	5.625	5.641	2-024	5.661	
17.75	5.452	5.479	5.502	3.522	2-233	2+227	2.262	5.575	5.534	5.592
******			EXT	PECTED USE	FUL LIFE	IN YEARS	1222+144			******
- Z			EX7	PECTED USE	FUL LIFE	IN YEARS	*			
Z R.O.I.		2	EX7 3	ECTED USE	5	IN YEARS		 3	9	10
Z R.J.I.		2	EX7	ECTED USE	FUL LIFE	IN YEARS	7	3		10
z R.O.I. 18.00	1	2	5 . 174	ECTED USE	5 3.127	IN YEARS	7	3	9 4 . 30 3	10
Z R.O.I. 18.00 19.25	1 0.847 0.846	2	EX7 3 2.174 2.166	2.490 2.677	5 3.127 3.110	IN YEARS 6 3.498 3.475	7	3	9 4.303 4.267	10 4.494 4.454
z R.O.I. 18.00	1	2	EX7 3 2.174 2.166	2.490 2.677	5 3.127 3.110 3.092	IN YEARS	7 	3 4.078 4.046 4.015	9 4.303 4.267 4.232	10 4.494 4.454 4.454
Z R.J.I. 18.00 19.25 18.50	1 0.847 0.846 0.344	2	EX7 3 2.174 2.166	2.490 2.677	5 3.127 3.110 3.092	IN YEARS 6 3.498 3.475	7 	3	9 4.303 4.267 4.232	10 4.494 4.454
2 R.O.I. 18.00 19.25 18.50 18.75 19.00	1 0.847 0.846 0.344 0.344 0.342 0.342	2 1.500 1.501 1.550 1.551 1.551	2.174 2.166 2.157 2.148 2.148	4 2.490 2.677 2.664 2.651 2.639	5 3.127 3.110 3.092 3.075 3.058	IN YEARS 3.498 3.475 3.453 3.431 3.410	7 3.812 3.735 3.758 3.758 3.732	3 4.078 4.046 4.015 3.765	9 4 - 30 3 4 - 267 4 - 232 4 - 198	10 4.494 4.454 4.454 4.377
2 R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25	1 0.847 0.846 0.344 0.344 0.342 0.840 0.835	2 1.500 1.501 1.556 1.551 1.551 1.542	2.174 2.166 2.157 2.148 2.148	4 2.490 2.677 2.664 2.651 2.639	5 3.127 3.110 3.092 3.075 3.058	IN YEARS 3.498 3.475 3.453 3.431 3.410	7 3.812 3.735 3.758 3.758 3.732	3 4.078 4.046 4.015 3.765	9 4.303 4.267 4.232 4.158 4.163	10 4.494 4.454 4.454 4.377 4.339
2 R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50	1 0.847 0.846 0.344 0.542 0.840 0.835 0.837	2 1.500 1.501 1.551 1.551 1.551 1.547 1.542 1.542	EX7 3 2.174 2.166 2.157 2.148 2.140 2.131 2.123	4 2.490 2.677 2.664 2.651 2.639	5 3.127 3.110 3.092 3.075 3.058	IN YEARS 3.498 3.475 3.453 3.431 3.410	7 3.812 3.735 3.758 3.758 3.732	3 4.078 4.046 4.015 3.765 3.755	9 4.303 4.267 4.232 4.158 4.163	10 4.494 4.454 4.454 4.377
2 R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25	1 0.847 0.846 0.344 0.344 0.342 0.840 0.835	2 1.500 1.501 1.556 1.551 1.551 1.542	2.174 2.166 2.157 2.148 2.148 2.140 2.131	4 2.490 2.677 2.664 2.651 2.639 2.526	5 3.127 3.110 3.092 3.075 3.058 3.058	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388	7 3.812 3.735 3.758 3.758 3.732 3.706 3.680	3 4.078 4.046 4.015 3.765 3.765 3.925	9 4.303 4.267 4.232 4.158 4.163 4.130	10 4.494 4.454 4.454 4.377 4.339 4.302
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75	1 0.847 0.846 0.344 0.542 0.846 0.844 0.840 0.835 0.835 0.835	2 1.500 1.501 1.556 1.551 1.551 1.547 1.542 1.537 1.532	2.174 2.166 2.157 2.148 2.140 2.131 2.131 2.131 2.133 2.315	2.490 2.490 2.677 2.464 2.651 2.639 2.626 2.613 2.601	5 3.127 3.110 3.092 3.075 3.058 3.041 3.024 3.007	IN YEARS 3.498 3.475 3.453 3.453 3.431 3.410 3.388 3.367 3.367 3.346	7 3.812 3.755 3.758 3.758 3.732 3.706 3.680 3.680 3.655 3.629	3 4.078 4.046 4.015 3.765 3.754 3.925 3.895	9 4.303 4.267 4.232 4.158 4.163 4.130 4.096	10 4.494 4.454 4.454 4.377 4.339 4.302 4.245
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00	1 0.847 0.846 0.344 0.344 0.342 0.840 0.835 0.837 0.935 0.833	2 1.500 1.501 1.550 1.551 1.547 1.542 1.542 1.532 1.532 1.528	2.174 2.166 2.157 2.148 2.148 2.140 2.131 2.123 2.315 2.106	4 2.490 2.677 2.664 2.651 2.639 2.526 2.613 2.601 2.589	5 3.127 3.110 3.092 3.075 3.058 3.041 3.024 3.007 2.991	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.366 3.325	7 3.812 3.755 3.758 3.758 3.732 3.706 3.680 3.655 3.629 3.605	3 4.078 4.046 4.015 3.765 3.755 3.925 3.895 3.254 3.25 3.254 3.837	9 4.303 4.267 4.232 4.198 4.163 4.130 4.096 4.033 4.031	10 4.494 4.454 4.454 4.377 4.339 4.302 4.245
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00 20.25	1 0.247 0.846 0.344 0.344 0.342 0.840 0.835 0.837 0.935 0.935 0.935 0.833 0.832	2 1.500 1.501 1.550 1.551 1.551 1.547 1.542 1.537 1.532 1.528 1.528 1.523	2.174 2.166 2.157 2.148 2.148 2.140 2.131 2.123 2.131 2.123 2.115 2.106 2.093	4 2.490 2.677 2.664 2.651 2.639 2.526 2.613 2.501 2.589 2.577	5 3.127 3.127 3.092 3.075 3.058 3.058 3.041 3.024 3.007 2.991 2.991	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.346 3.325 3.305	7 3.812 3.758 3.758 3.732 3.706 3.680 3.635 3.629 3.605 3.580	3 4.078 4.046 4.015 3.765 3.765 3.925 3.895 3.25 3.25 3.25 3.25 3.25 3.25 3.25 3.2	9 4.303 4.267 4.232 4.158 4.163 4.130 4.096 4.031 3.799	10 4.494 4.454 4.454 4.315 4.377 4.302 4.245 4.225 4.225 4.192 4.192 4.157
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00 20.25 20.30	1 0.847 0.844 0.344 0.344 0.344 0.839 0.839 0.837 0.935 0.833 0.832 0.833 0.832 0.833	2 1.500 1.501 1.551 1.551 1.547 1.542 1.537 1.532 1.528 1.528 1.523 1.519	EX7 3 2.174 2.166 2.157 2.168 2.140 2.131 2.123 2.106 2.095 2.090	4 2.490 2.677 2.664 2.651 2.626 2.651 2.626 2.626 2.613 2.601 2.526 2.613 2.526 2.577 2.564	5 3.127 3.110 3.092 3.075 3.058 3.041 3.024 3.027 2.991 2.974 2.958	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.346 3.326 3.325 3.285	7 3.812 3.735 3.758 3.732 3.706 3.480 3.455 3.629 3.605 3.556	3 4.078 4.044 4.015 3.755 3.754 3.925 3.895 3.895 3.844 3.837 3.207 3.761	9 4.303 4.267 4.232 4.158 4.163 4.130 4.096 4.031 3.999 3.967	10 4.494 4.454 4.454 4.377 4.339 4.302 4.245 4.225 4.225 4.192 4.157 4.122
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00 20.25	1 0.247 0.846 0.344 0.344 0.342 0.840 0.835 0.837 0.935 0.935 0.935 0.833 0.832	2 1.500 1.501 1.550 1.551 1.551 1.547 1.542 1.537 1.532 1.528 1.528 1.523	2.174 2.166 2.157 2.148 2.148 2.140 2.131 2.123 2.131 2.123 2.115 2.106 2.093	4 2.490 2.677 2.664 2.651 2.639 2.526 2.613 2.501 2.589 2.577	5 3.127 3.127 3.092 3.075 3.058 3.058 3.041 3.024 3.007 2.991 2.991	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.346 3.325 3.305	7 3.812 3.758 3.758 3.732 3.706 3.680 3.635 3.629 3.605 3.580	3 4.078 4.046 4.015 3.765 3.765 3.925 3.895 3.25 3.25 3.25 3.25 3.25 3.25 3.25 3.2	9 4.303 4.267 4.232 4.158 4.163 4.130 4.096 4.031 3.799	10 4.494 4.454 4.454 4.315 4.377 4.302 4.245 4.225 4.225 4.192 4.192 4.157
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75	1 0.847 0.846 0.344 0.542 0.846 0.846 0.846 0.835 0.835 0.837 0.935 0.837 0.833 0.832 0.833 0.832 0.832	2 1.500 1.501 1.550 1.551 1.547 1.547 1.547 1.547 1.537 1.537 1.532 1.532 1.532 1.519 1.514	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.723 2.106 2.093 2.090 2.082	4 2.490 2.677 2.664 2.651 2.639 2.526 2.613 2.501 2.589 2.577 2.564 2.552	5 3.127 3.110 3.092 3.058 3.058 3.024 3.024 3.027 2.991 2.991 2.975 2.942	IN YEARS 3.498 3.475 3.453 3.453 3.453 3.453 3.453 3.388 3.367 3.386 3.367 3.367 3.346 3.325 3.265 3.285 3.265	7 3.812 3.758 3.758 3.758 3.732 3.706 3.680 3.655 3.629 3.605 3.580 3.556 3.556 3.532	3 4.078 4.046 4.015 3.755 3.754 3.925 5.295 5.295 5.295 5.295 5.295 5.244 3.837 1.207 3.781 3.753	9 4.303 4.267 4.232 4.163 4.163 4.130 4.096 4.603 4.603 4.603 4.603 4.603 5.999 3.967 3.936	10 4.494 4.454 4.454 4.377 4.339 4.302 4.245 4.225 4.225 4.225 4.192 4.192 4.157 4.122 4.084
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00	1 0.847 0.846 0.344 0.542 0.835 0.835 0.837 0.935 0.935 0.935 0.832 0.832 0.628 0.628 0.826	2 1.500 1.501 1.551 1.555 1.557 1.547 1.547 1.547 1.547 1.532 1.532 1.532 1.532 1.532 1.519 1.514 1.509	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.123 2.131 2.123 2.106 2.095 2.095 2.062 2.074	2.490 2.490 2.677 2.464 2.651 2.639 2.626 2.613 2.601 2.589 2.577 2.364 2.552 2.540	FUL LIFE 	IN YEARS 3.498 3.475 3.453 3.453 3.431 3.388 3.367 3.326 3.326 3.326 3.325 3.265 3.265 3.265 3.265 3.265	7 3.812 3.758 3.758 3.758 3.706 3.680 3.629 3.629 3.629 3.629 3.556 3.556 3.552 3.508	3 4.078 4.046 4.015 3.955 3.955 3.955 3.955 3.895 3.895 3.856 3.837 3.253 3.721 3.753 3.726		10 4.494 4.454 4.454 4.315 4.302 4.302 4.245 4.225 4.225 4.192 4.192 4.157 4.122 4.084 4.054
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25	1 0.247 0.846 0.344 0.344 0.342 0.839 0.839 0.837 0.935 0.935 0.833 0.832 0.832 0.830 0.629 0.825	2 1.500 1.501 1.551 1.555 1.555 1.547 1.542 1.537 1.532 1.528 1.528 1.523 1.514 1.514 1.509 1.505	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.123 2.115 2.106 2.095 2.040 2.040 2.040 2.066	2.490 2.677 2.464 2.651 2.639 2.626 2.613 2.601 2.589 2.577 2.544 2.552 2.540 2.529	FUL LIFE 	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.364 3.326 3.326 3.325 3.265 3.265 3.225	7 3.812 3.755 3.758 3.758 3.758 3.758 3.706 3.680 3.655 3.629 3.629 3.625 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556	3 4.078 4.046 4.015 3.955 3.955 3.925 3.835 3.837 3.837 3.837 3.726 3.726 3.497		10 4.494 4.454 4.454 4.315 4.302 4.302 4.245 4.225 4.225 4.192 4.192 4.157 4.122 4.084 4.084 4.054 4.054
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25 21.50	1 0.847 0.844 0.344 0.344 0.344 0.345 0.839 0.839 0.837 0.935 0.837 0.935 0.833 0.832 0.830 0.628 0.825 0.825 0.825 0.825	2 1.500 1.501 1.555 1.555 1.555 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.509 1.505 1.500	EX7 2.174 2.146 2.157 2.148 2.140 2.131 2.123 2.106 2.093 2.090 2.066 2.058	4 2.490 2.677 2.664 2.651 2.639 2.526 2.613 2.526 2.517 2.564 2.552 2.552 2.529 2.517	FUL LIFE 5 3.127 3.110 3.092 3.075 3.058 3.041 3.024 3.007 2.991 2.974 2.958 2.926 2.926 2.926 2.910 2.295	IN YEARS 3.498 3.475 3.453 3.453 3.431 3.410 3.388 3.367 3.346 3.326 3.326 3.265 3.265 3.225 3.225 3.205	7 3.812 3.735 3.758 3.732 3.706 3.680 3.635 3.629 3.605 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.536 3.546 3.536 3.546 3.546 3.546 3.546 3.546 3.556 3.566 3.556 3.566 3.556 3.566	3 4.078 4.044 4.015 3.755 3.755 3.955 3.925 3.895 3.895 3.825 3.825 3.825 3.825 3.726 3.726 3.457 3.472	9 4.303 4.267 4.267 4.152 4.152 4.163 4.163 4.130 4.096 4.031 3.999 3.967 3.936 3.205 3.275 3.545	10 4.494 4.454 4.454 4.377 4.339 4.302 4.245 4.255 4.225 4.192 4.157 4.122 4.054 4.057 4.1577 4.1577 4.1577 4.1577 4.1577 4.15777 4.15777 4.1
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25	1 0.247 0.846 0.344 0.344 0.342 0.839 0.839 0.837 0.935 0.935 0.833 0.832 0.832 0.830 0.629 0.825	2 1.500 1.501 1.551 1.555 1.555 1.547 1.542 1.537 1.532 1.528 1.528 1.523 1.514 1.514 1.509 1.505	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.123 2.115 2.106 2.093 2.090 2.062 2.074 2.066	2.490 2.677 2.464 2.651 2.639 2.626 2.613 2.601 2.589 2.577 2.544 2.552 2.540 2.529	FUL LIFE 	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.364 3.326 3.326 3.325 3.265 3.265 3.225	7 3.812 3.755 3.758 3.758 3.758 3.758 3.706 3.680 3.655 3.629 3.629 3.625 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556	3 4.078 4.046 4.015 3.955 3.955 3.925 3.835 3.837 3.837 3.837 3.726 3.726 3.497	9 4.303 4.267 4.232 4.198 4.163 4.130 4.096 4.033 4.031 3.999 3.967 3.936 3.205 3.205 3.275	10 4.494 4.454 4.454 4.315 4.302 4.302 4.245 4.225 4.225 4.192 4.192 4.157 4.122 4.084 4.084 4.054 4.054
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25 21.50	1 0.847 0.844 0.344 0.344 0.344 0.839 0.839 0.837 0.935 0.837 0.935 0.833 0.832 0.832 0.828 0.825 0.825 0.825 0.825	2 1.500 1.501 1.550 1.551 1.547 1.542 1.537 1.528 1.528 1.528 1.528 1.528 1.528 1.529 1.509 1.509 1.500 1.500 1.500 1.500	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.123 2.115 2.106 2.093 2.082 2.066 2.058 2.050	2.490 2.490 2.677 2.464 2.651 2.651 2.639 2.526 2.613 2.526 2.513 2.526 2.552 2.552 2.552 2.552 2.552 2.552 2.552	FUL LIFE 5 3.127 3.110 3.092 3.058 3.058 3.024 3.024 3.027 2.991 2.991 2.975 2.975 2.942 2.926 2.926 2.926 2.926 2.925 3.579	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.326 3.326 3.325 3.265 3.265 3.265 3.205 3.205 3.180	7 3.812 3.755 3.758 3.758 3.732 3.706 3.680 3.655 3.629 3.605 3.580 3.556	3 4.078 4.046 4.015 3.755 3.954 3.925 3.295 3.246 3.837 3.207 3.207 3.753 3.726 3.457 3.672 3.645	9 4.303 4.267 4.232 4.198 4.163 4.163 4.130 4.096 4.031 3.799 3.967 3.936 3.205 3.275 3.245 3.815	10 4.494 4.454 4.354 4.302 4.302 4.245 4.225 4.225 4.225 4.225 4.225 4.225 4.225 4.225 4.225 4.255 4.225 4.255 4.225 4.192 4.084 4.054 4.054 3.995 3.955
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25 21.50 21.75	1 0.847 0.846 0.344 0.542 0.835 0.835 0.837 0.933 0.837 0.933 0.832 0.832 0.832 0.825 0.825 0.825 0.821	2 1.500 1.501 1.555 1.555 1.555 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.509 1.505 1.500	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.123 2.140 2.093 2.093 2.090 2.082 2.074 2.066 2.058 2.050 2.042	2.490 2.490 2.677 2.464 2.651 2.651 2.639 2.526 2.613 2.501 2.589 2.526 2.577 2.564 2.552 2.552 2.517 2.505 2.505 2.505	FUL LIFE 5 3.127 3.110 3.092 3.075 3.058 3.024 3.024 3.027 2.991 2.974 2.958 2.926 2.926 2.926 2.926 2.926 2.926 2.926 2.926 2.926 2.926 2.926 2.926 2.926 2.926 2.926	IN YEARS 3.498 3.475 3.453 3.453 3.453 3.453 3.453 3.388 3.367 3.326 3.326 3.326 3.326 3.285 3.265 3.265 3.205 3.205 3.180 3.167	7 3.812 3.725 3.758 3.758 3.732 3.706 3.680 3.655 3.629 3.629 3.605 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.436 3.436 3.436 3.436 3.436 3.436 3.436 3.436 3.446	3 4.078 4.046 4.015 3.755 3.754 3.895 3.895 3.895 3.895 3.846 3.837 1.207 3.753 3.753 3.753 3.776 3.457 3.672 3.645 3.457 3.419	9 4.303 4.267 4.232 4.158 4.163 4.130 4.096 4.031 3.996 3.967 3.936 3.205 3.215 3.245 3.215 3.786	10 4.494 4.454 4.354 4.302 4.302 4.245 4.225 4.192 4.192 4.192 4.192 4.192 4.192 4.084 4.021 3.955 3.955 3.923
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25 21.50 21.75 22.00 22.25 22.50	1 0.847 0.846 0.344 0.342 0.846 0.846 0.846 0.835 0.835 0.837 0.837 0.837 0.837 0.837 0.837 0.837 0.837 0.837 0.828 0.828 0.828 0.825 0.821 0.820	2 1.500 1.501 1.551 1.551 1.547 1.547 1.542 1.537 1.532 1.528 1.528 1.523 1.514 1.509 1.505 1.500 1.496 1.492	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.123 2.115 2.106 2.093 2.082 2.066 2.058 2.050	2.490 2.490 2.677 2.464 2.651 2.639 2.626 2.613 2.601 2.589 2.577 2.364 2.552 2.540 2.527 2.540 2.527 2.540 2.527 2.517 2.505 2.494 2.432	FUL LIFE 3.127 3.110 3.092 3.058 3.058 3.024 3.007 2.991 2.974 2.958 2.926	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.346 3.326 3.326 3.265 3.265 3.265 3.225 3.205 3.205 3.180 3.167 3.143	7 3.812 3.758 3.758 3.758 3.758 3.706 3.680 3.629 3.629 3.629 3.629 3.629 3.556 3.556 3.552 3.532 3.508 3.436	3 4.078 4.078 4.046 4.015 3.954 3.955 3.925 3.925 3.995 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.857 3.726 3.672 3.672 3.645 3.419 3.593	9 4.303 4.267 4.232 4.198 4.163 4.130 4.096 4.096 4.031 3.999 3.967 3.936 3.205 3.275 3.815 3.786 3.757	10 4.494 4.454 4.454 4.315 4.302 4.245 4.225 4.225 4.225 4.225 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.084 4.021 3.995 3.955 3.923 3.392
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25 21.50 21.75 22.00 22.25	1 0.847 0.846 0.344 0.542 0.835 0.835 0.837 0.435 0.435 0.435 0.435 0.435 0.625 0.625 0.825 0.825 0.825 0.821 0.820 0.813	2 1.500 1.501 1.551 1.555 1.557 1.547 1.547 1.547 1.547 1.537 1.537 1.532 1.537 1.532 1.537 1.532 1.537 1.532 1.537 1.532 1.537 1.532 1.532 1.554 1.555 1.550 1.550 1.555 1.550	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.723 2.140 2.131 2.723 2.106 2.093 2.066 2.058 2.050 2.042 2.034	4 2.490 2.677 2.664 2.651 2.639 2.526 2.613 2.601 2.589 2.577 2.564 2.552	FUL LIFE 5 3.127 3.110 3.092 3.075 3.058 3.041 3.024 3.007 2.991 2.974 2.958 2.926 2.925 3.579 2.564 2.554 3.33	IN YEARS 3.498 3.475 3.453 3.453 3.453 3.410 3.388 3.367 3.346 3.325 3.265 3.265 3.225 3.225 3.205 3.180 3.167 3.143 3.129	7 3.812 3.758 3.758 3.758 3.758 3.758 3.706 3.680 3.629 3.629 3.629 3.629 3.629 3.556 3.556 3.552 3.532 3.532 3.532 3.544 3.444 3.444 3.434 3.434 3.416 3.393 3.371	3 4.078 4.078 4.046 4.015 3.955 3.955 3.925 3.895 3.895 3.837 3.203 3.726 3.726 3.497 3.472 3.472 3.445 3.419 3.593 3.568	9 4.303 4.267 4.232 4.198 4.163 4.163 4.163 4.096 4.036 4.036 4.036 4.037 3.999 3.967 3.936 3.705 3.275 3.845 3.715 3.786 3.757 3.729	10 4.494 4.454 4.454 4.315 4.302 4.302 4.245 4.225 4.225 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.195 3.995 3.992 3.592 3.590
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.00 19.25 19.00 19.25 20.00 20.25 20.50 20.25 20.50 21.25 21.50 21.50 21.75 22.00 22.25 22.50 22.75	1 0.847 0.846 0.344 0.344 0.342 0.839 0.837 0.935 0.837 0.935 0.833 0.832 0.830 0.629 0.826 0.825 0.825 0.823 0.821 0.820 0.813 0.316 0.316 0.315	2 1.500 1.501 1.550 1.551 1.547 1.542 1.537 1.528 1.529 1.528 1.5200 1.428 1.428 1.428 1.428 1.428 1.42888 1.42888 1.42888 1.42888 1.42888 1.42888 1.42888 1.42888 1.42888	EX7 3 2.174 2.146 2.157 2.148 2.140 2.131 2.123 2.106 2.093 2.090 2.066 2.058 2.050 2.056 2.057 2.056 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.056 2.057 2.056 2.056 2.057 2.056 2.056 2.057 2.056 2.056 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2	2.490 2.490 2.677 2.464 2.651 2.639 2.626 2.613 2.601 2.589 2.577 2.364 2.552 2.540 2.527 2.540 2.527 2.540 2.527 2.517 2.505 2.494 2.432	FUL LIFE 3.127 3.110 3.092 3.058 3.058 3.024 3.007 2.991 2.974 2.958 2.926	IN YEARS 3.498 3.475 3.453 3.431 3.410 3.388 3.367 3.346 3.326 3.326 3.265 3.265 3.265 3.225 3.205 3.205 3.180 3.167 3.143	7 3.812 3.758 3.758 3.758 3.758 3.706 3.680 3.629 3.629 3.629 3.629 3.629 3.556 3.556 3.552 3.532 3.508 3.436 3.537 3.436	3 4.078 4.078 4.046 4.015 3.954 3.955 3.925 3.925 3.995 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.895 3.857 3.726 3.672 3.672 3.645 3.419 3.593	9 4.303 4.267 4.232 4.198 4.163 4.130 4.096 4.096 4.031 3.999 3.967 3.936 3.205 3.275 3.815 3.786 3.757	10 4.494 4.454 4.454 4.315 4.302 4.245 4.225 4.225 4.225 4.225 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.084 4.021 3.995 3.955 3.923 3.392
Z R.J.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.00 19.25 19.00 20.25 20.00 20.25 20.50 20.50 20.75 21.00 21.25 21.50 21.75 22.00 22.25 22.50 22.75 23.00	1 0.847 0.846 0.344 0.542 0.835 0.835 0.835 0.837 0.935 0.833 0.833 0.832 0.830 0.623 0.826 0.825 0.825 0.825 0.821 0.820 0.813 0.316 0.316 0.513	2 1.500 1.501 1.550 1.551 1.552 1.528 1.528 1.528 1.528 1.528 1.528 1.528 1.528 1.529 1.519 1.514 1.509 1.509 1.500 1.490 1.490 1.492 1.427 1.428 1.478 1.474	EX7 3 2.174 2.146 2.157 2.148 2.140 2.131 2.123 2.106 2.093 2.090 2.066 2.058 2.050 2.056 2.057 2.056 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.056 2.057 2.056 2.056 2.057 2.056 2.056 2.057 2.056 2.056 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2.056 2.057 2	4 2.490 2.677 2.664 2.651 2.639 2.526 2.613 2.601 2.589 2.577 2.564 2.552	FUL LIFE 5 3.127 3.110 3.092 3.075 3.058 3.041 3.024 3.007 2.991 2.974 2.958 2.926 2.925 3.579 2.564 2.554 3.33	IN YEARS 3.498 3.475 3.453 3.453 3.453 3.410 3.388 3.367 3.346 3.325 3.265 3.265 3.225 3.225 3.205 3.180 3.167 3.143 3.129	7 3.812 3.755 3.758 3.758 3.758 3.758 3.758 3.455 3.629 3.605 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.557 3.571 3.371 3.347	3 4.078 4.046 4.015 3.755 3.954 3.925 3.925 3.925 3.925 3.925 3.925 3.923 3.203 3.726 3.726 3.726 3.726 3.497 3.726 3.497 3.497 3.497 3.497 3.497 3.497 3.497 3.497 3.497 3.497 3.497 3.497 3.497 3.593 3.543	9 4.303 4.267 4.232 4.158 4.163 4.130 4.130 4.130 4.130 4.130 4.130 4.031 3.999 3.9647 3.936 3.705 3.275 3.815 3.786 3.729 3.701	10 4.494 4.454 4.377 4.339 4.302 4.245 4.225 4.225 4.225 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.054 4.054 4.054 4.054 5.955 3.955 3.923 3.590 3.230 3.230
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.00 19.25 19.00 20.25 20.00 20.25 20.30 20.25 20.30 20.75 21.00 21.25 21.50 21.75 22.00 22.25 22.50 22.75 23.00 23.25	1 0.847 0.846 0.344 0.542 0.846 0.844 0.542 0.835 0.835 0.835 0.837 0.835 0.837 0.835 0.837 0.837 0.837 0.837 0.828 0.828 0.828 0.825 0.825 0.821 0.820 0.813 0.316 0.316 0.513 0.511	2 1.500 1.501 1.551 1.555 1.557 1.547 1.547 1.547 1.547 1.547 1.528 1.528 1.523 1.514 1.509 1.505 1.500 1.490 1.490 1.490 1.478 1.478 1.476 1.470	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.123 2.140 2.131 2.123 2.140 2.093 2.093 2.066 2.058 2.050 2.058 2.050 2.042 2.034 2.027 2.011 2.004	2.490 2.490 2.677 2.464 2.651 2.439 2.526 2.613 2.401 2.589 2.577 2.564 2.552 2.517 2.564 2.552 2.517 2.505 2.407 2.407 2.552 2.557 2.557 2.557 2.405 2.407 2.557 2.407 2.407 2.557 2.407 2.407 2.557 2.407 2.407 2.557 2.407 2.557 2.407 2.407 2.557 2.407 2.557 2.407 2.407 2.557 2.407 2.557 2.407 2.407 2.557 2.407	FUL LIFE 3.127 3.110 3.092 3.075 3.058 3.041 3.024 3.027 2.991 2.974 2.975 2.975 2.975 2.976 2.975 2.976 2.976 2.976 2.976 2.976 2.976 2.976 2.976 2.975 2.976 2.975 2.976 2.975 2.976 2.975	IN YEARS 3.498 3.475 3.453 3.453 3.453 3.453 3.346 3.325 3.367 3.265 3.265 3.265 3.225 3.205 3.180 3.167 3.143 3.129 3.111	7 3.812 3.758 3.758 3.758 3.758 3.758 3.706 3.680 3.629 3.629 3.629 3.629 3.629 3.556 3.556 3.552 3.532 3.532 3.532 3.544 3.444 3.444 3.434 3.434 3.416 3.393 3.371	3 4.078 4.078 4.046 4.015 3.955 3.955 3.925 3.895 3.895 3.837 3.203 3.726 3.726 3.497 3.472 3.472 3.445 3.419 3.593 3.568	9 4.303 4.267 4.232 4.158 4.163 4.163 4.163 4.096 4.096 4.096 4.031 3.999 3.936 3.936 3.935 3.245 3.845 3.757 3.729 3.701 3.673 3.646	10 4.494 4.454 4.454 4.315 4.302 4.302 4.245 4.225 4.225 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.192 4.195 3.995 3.992 3.592 3.590
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25 21.50 21.75 22.00 22.25 22.50 22.75 23.00 23.25 23.50	1 0.247 0.846 0.344 0.542 0.839 0.839 0.837 0.935 0.832 0.832 0.832 0.832 0.825 0.855	2 1.500 1.551 1.555 1.550 1.555 1.550 1.555 1.550 1.555 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.550 1.547 1.555 1.550 1.547 1.555 1.550 1.547 1.478 1.478 1.476 1.476 1.476 1.476 1.476 1.476	EX7 3 2.174 2.146 2.157 2.148 2.140 2.131 2.123 2.106 2.093 2.090 2.066 2.058 2.050 2.042 2.034 2.027 2.011 2.004 1.996	4 2.490 2.677 2.664 2.651 2.639 2.526 2.651 2.589 2.527 2.564 2.552 2.5555 2.55555 2.55555 2.55555 2.55555 2.55555 2.555555 2.5555555555	FUL LIFE 3.127 3.110 3.092 3.075 3.058 3.041 3.024 3.007 2.991 2.974 2.958 2.926 2.910 2.295 2.974 2.958 2.926 2.910 2.295 2.564 2.513 2.513 2.5789 2.774	IN YEARS 3.498 3.475 3.453 3.453 3.453 3.453 3.457 3.367 3.367 3.326 3.326 3.326 3.285 3.265 3.265 3.205 3.205 3.180 3.167 3.129 3.111 3.092 3.074	7 3.812 3.725 3.758 3.758 3.732 3.706 3.680 3.655 3.629 3.605 3.580 3.556 3.556 3.556 3.556 3.556 3.556 3.556 3.532 3.508 3.434 3.4461 3.434 3.434 3.416 3.393 3.371 3.347 3.327	3 4.078 4.046 4.015 3.954 3.954 3.955 3.954 3.955 3.954 3.954 3.954 3.954 3.954 3.954 3.954 3.954 3.954 3.954 3.954 3.753 3.753 3.726 3.459 3.459 3.459 3.459 3.459 3.459 3.543 3.543 3.543 3.513	9 4.303 4.267 4.232 4.198 4.163 4.163 4.163 4.163 4.163 4.163 4.163 4.130 4.096 4.031 3.799 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.936 3.705 3.845 3.786 3.729 3.701 3.673	10 4.494 4.454 4.377 4.339 4.302 4.245 4.225 4.225 4.225 4.225 4.225 4.192 4.192 4.084 4.054 4.054 4.054 4.054 4.055 3.955 3.955 3.955 3.592 3.590 3.590 3.799
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.00 19.25 19.00 20.25 20.00 20.25 20.30 20.25 20.30 20.75 21.00 21.25 21.50 21.75 22.00 22.25 22.50 22.75 23.00 23.25	1 0.847 0.846 0.344 0.542 0.846 0.844 0.542 0.835 0.835 0.835 0.837 0.835 0.837 0.835 0.837 0.837 0.837 0.837 0.828 0.828 0.828 0.825 0.825 0.821 0.820 0.813 0.316 0.316 0.513 0.511	2 1.500 1.501 1.551 1.555 1.557 1.547 1.547 1.547 1.547 1.547 1.528 1.528 1.523 1.514 1.509 1.505 1.500 1.490 1.490 1.490 1.478 1.478 1.476 1.470	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.123 2.140 2.131 2.123 2.140 2.093 2.093 2.066 2.058 2.050 2.058 2.050 2.042 2.034 2.027 2.011 2.004	2.490 2.490 2.677 2.464 2.651 2.439 2.526 2.613 2.401 2.589 2.577 2.564 2.552 2.517 2.564 2.552 2.517 2.505 2.407 2.407 2.552 2.557 2.557 2.557 2.405 2.407 2.407 2.557 2.407 2.557 2.407 2.407 2.407 2.557 2.407 2.557 2.407 2.407 2.407 2.557 2.407 2.557 2.407 2.407 2.557 2.407 2.557 2.407 2.407 2.407 2.557 2.407	FUL LIFE 3.127 3.110 3.092 3.058 3.058 3.024 3.024 3.024 3.027 2.991 2.991 2.975 2.942 2.926 2.942 2.926 2.942 2.926 2.942 2.955 3.579 2.564 2.533 2.513 2.513 2.789	IN YEARS 3.498 3.475 3.453 3.453 3.453 3.453 3.453 3.457 3.388 3.367 3.367 3.265 3.265 3.265 3.265 3.225 3.205 3.180 3.167 3.143 3.129 3.111 3.074 3.056	7 3.812 3.725 3.758 3.758 3.732 3.706 3.680 3.655 3.629 3.629 3.605 3.556 3.556 3.556 3.552 3.508 3.434 3.444 3.444 3.444 3.444 3.432 3.416 3.393 3.371 3.347 3.327 3.306	3 4.078 4.046 4.015 3.754 3.954 3.925 3.895 3.895 3.837 3.203 3.726 3.726 3.457 3.726 3.457 3.726 3.457 3.593 3.543 3.543 3.543 3.543 3.543 3.543 3.543	9 4.303 4.267 4.232 4.158 4.163 4.163 4.163 4.096 4.096 4.096 4.031 3.999 3.936 3.936 3.935 3.245 3.845 3.757 3.729 3.701 3.673 3.646	10 4.494 4.494 4.454 4.315 4.302 4.302 4.225 4.225 4.192 4.192 4.192 4.197 4.122 4.083 4.054 4.021 3.993 3.955 3.923 3.392 3.500 3.799 3.749
Z R.O.I. 18.00 19.25 18.50 18.75 19.00 19.25 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25 21.50 21.75 22.00 22.25 22.50 22.75 23.00 23.25 23.50	1 0.847 0.846 0.344 0.344 0.342 0.835 0.837 0.935 0.837 0.935 0.833 0.832 0.830 0.629 0.826 0.825 0.825 0.823 0.821 0.820 0.813 0.316 0.315 0.813 0.811 0.811 0.813 0.811 0.810 0.813 0.811 0.810	2 1.500 1.501 1.550 1.551 1.555 1.557 1.552 1.528 1.528 1.528 1.528 1.528 1.528 1.528 1.528 1.529 1.529 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.509 1.500 1.496 1.496 1.463 1.461	EX7 2.174 2.166 2.157 2.148 2.140 2.131 2.723 2.106 2.090 2.0050 2.005	2.490 2.490 2.490 2.490 2.490 2.490 2.490 2.490 2.490 2.490 2.490 2.490 2.490 2.490 2.589 2.589 2.589 2.552 2.540 2.552 2.505 2.400 2.505 2.400 2.400 2.505 2.400 2.415	FUL LIFE 3.127 3.110 3.092 3.058 3.058 3.058 3.024 3.024 3.024 3.027 2.991 2.974 2.975 2.942 2.926 2.942 2.942 2.942 2.942 2.942 2.942 2.955 2.564 2.515 2.554 2.533 2.515 2.574 2.750	IN YEARS 3.498 3.475 3.453 3.453 3.453 3.453 3.453 3.453 3.367 3.367 3.326 3.326 3.326 3.285 3.265 3.265 3.225 3.205 3.180 3.167 3.129 3.111 3.592 3.074 3.056 3.038	7 3.812 3.725 3.758 3.758 3.732 3.706 3.680 3.655 3.629 3.605 3.556 3.556 3.556 3.556 3.556 3.556 3.434 3.444 3.441 3.432 3.416 3.393 3.371 3.347 3.327 3.306 3.254 3.203	3 4.078 4.046 4.015 3.785 3.754 3.755 3.895 3.895 3.895 3.895 3.895 3.753 3.726 3.457 3.726 3.457 3.593 3.593 3.593 3.543 3.543 3.543 3.543 3.543 3.543 3.543 3.545 3.545 3.545 3.545 3.545 3.545 3.545 3.545 3.545 3.493 3.445	9 4.303 4.267 4.232 4.158 4.163 4.163 4.163 4.130 4.096 4.031 3.9967 3.936 3.936 3.936 3.936 3.705 3.845 3.729 3.7201 3.646 3.619 3.592	10 4.494 4.454 4.315 4.302 4.302 4.302 4.245 4.225 4.192 4.192 4.157 4.122 4.083 4.054 4.021 3.955 3.923 3.392 3.550 3.290 3.749 3.740 3.711

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TABLE 1

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RETURN ON INVESTMENT PERCENTAGE BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW) AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY 01/04/84

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R.O.I.	11	12	13	14	15	16	17	18	19	20
18.00	4.656	4.793	4,910	5.008	5.092	5.162	5.222	5.273	5.316	5.3
18.25		4.746	4.840	4.955 -	5.036	5.105	5-102	5.211	5.316 5.253 5.191	5.2
18.50		4.700	4.810	4.903	4.782	5.048	5.104	5.151 5.091	5.191	5.2
15.75	4.528	4.655	4.762	4.852	4.928	4.992	5.046	5.091	5.130	5.3
17.00	4.486	4.611	4.715	4.302	4.876	4.938	4.990	5.033	5.070	5.
19.25	4.446	4.567	4.065	4.753	4.824	4.884	4.934	4.975	5.012	5.4
19.50	4-406	4.523	4.622	4.705	4.774	4.532	4.850	4.921	4.954	4.
19.75	4.366	4.481	4.577	4.657	4.724	4.780	4.827	4.800	4.898	4.
20.00	4.327	4.439	4.533	4.611	4.675	4.730	4.775	4.812	4.343	
20.25	4.289	4.395	4.439	4.565	4.628	4.680	4.723	4.750	4.790	
20.50	4.251	4.353	4.446	4.520	4.581	4.631	4.673	4.703	4.737	4 -
20.75	4.214	4.313	4.434	4.475	4.534	4.583	4.024	4.457	4.605	4.
21.00	4.177	4.273	4.362	4.432	4.489	4.535	4.576	4.003	4.635	4.
21.25	4.141	4.240	4.321	4.387	4.444	4.490	4.523	4.519	4.535	4 .
21.50	4.105	4.202	4+231	4.347		4.445	4.431		4.536	4 •
21.75	4.070	4.164	4 242	4.305	4.353	4.400	4.436	4-465	4.438	4.
22.00	4.035	4.127	4-203	4.255	4.315	4 - 357	4.391		4.442	4 -
22.25	4.001	4_091	4-164	4.224	4.274	4-314	4.347		4-396	4 -
22.50 22.75	3.968 3.935	4.055 4.020	4.127 4.090	4.135 4.146	4.233 4.193	4.272 4.230	4.303 4.261	4.329 4.226	4.350 4.305	4.
			•							
23.00 23.25	3.902 3.870	3.985 3.951	4.053 4.017	4.198 4.071	4.153 4.114	4.189 4.149	4.219	4.243 4.201	4.203	4 . 4 .
23.50	3.833	3.917	3.982	4.034	4.076	4.110	4.139		4.175	4 -
23.75	3.807	3_884	3.947	4.034 3.997	4.013	4.110 * 4.071	4.095	4.120	4.137	4.
	325478			*****		*******				
	114324833					********		*******		
******			EX	PECTED US	FUL <u>LIFE</u>	_INYEARS				
I	21	22	EX.	PECTED US	FUL <u>LIFE</u> 25	_INYEARS	27	22	29	30
z 13.00	21 5.334	22	EX. 23 5.432	24	25 5 / 47	_INYEARS	27	22	29 5.510	30
z .0.I. 13.00 18.25	21 5.334 5.317	22 5.410 5.342	EX 23 5.432 5.363	24 5.451 5.381',	FUL <u>LIFE</u> 25 5.467 5.397	_INYEARS 26 5.480 5,409	27 5.492 5.420	28 5.502 5.429	29 5.510 5.437	30
z 13.00	21 5.334 5.317 5.252	22 5.410 5.342 5.270	EX 23 5.432 5.363 5.296	24 5.451 5.381', 5.313	5.397 5.328	_IN_YEARS 20 5.420 5.420 5.340	27 5.492 5.420 5.350	22 5.502 5.429 5.359	29 5.510 5.437 5.366	30 30 5.5 5.4 5.3
13.00 13.25 13.50 13.75	21 5.334 5.317 5.252 5.129	22 5.410 5.342 5.270 5.212	23 5.432 5.363 5.296 5.231	24 5.451 5.381', 5.313 5.247	5.467 5.397 5.328 5.261	_INYEARS 20 5.480 5.409 5.340 5.340 5.272	27 5.492 5.420 5.350 5.242	22 5.502 5.429 5.359 5.290	29 5.510 5.437 5.366 5.297	30 5.5 5.4 5.3 5.3
13.00 13.25 13.50 13.75 19.00	21 5.334 5.317 5.252 5.189 5.127	22 5.410 5.342 5.270 5.212 5.147	EX 23 5.432 5.363 5.296 5.231 5.167	24 5.451 5.381', 5.313 5.247 5.192	25 5.467 5.397 5.328 5.261 5.195	_INYEARS 20 5.480 5.409 5.340 5.272 5.206	27 5.492 5.420 5.350 5.242 5.215	22 5.502 5.429 5.359 5.290 5.223	29 5.510 5.437 5.366 5.297 5.229	30 5.5 5.3 5.3 5.3 5.3 5.3
13.00 13.25 13.50 13.75 19.00 19.25	21 5.334 5.317 5.252 5.139 5.127 5.066	22 5.410 5.342 5.270 5.212 5.149 5.087	EX. 23 5.432 5.363 5.296 5.231 5.167 5.194	PECTED US 24 5.451 5.381', 5.313 5.247 5.192 5.119	25 5.467 5.397 5.328 5.261 5.195 5.131	_INYEARS 20 5.480 5.409 5.340 5.272 5.206 5.141	27 5.492 5.420 5.350 5.242 5.215 5.150	22 5.502 5.429 5.359 5.290 5.223 5.157	29 5.510 5.437 5.366 5.297 5.229 5.103	30 5.5 5.4 5.3 5.3 5.3 5.3 5.3
13.00 13.25 13.50 13.75 19.00	21 5.334 5.317 5.252 5.189 5.127	22 5.410 5.342 5.270 5.212 5.147	EX. 23 5.432 5.363 5.296 5.231 5.167	24 5.451 5.381', 5.313 5.247 5.192	25 5.467 5.397 5.328 5.261 5.195	_INYEARS 20 5.480 5.409 5.340 5.272 5.206	27 5.492 5.420 5.350 5.242 5.215	22 5.502 5.429 5.359 5.290 5.223	29 5.510 5.437 5.366 5.297 5.229	3.0 3.5 5.4 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3
13.00 13.25 13.50 13.75 19.00 19.25 19.50	21 5.334 5.317 5.252 5.189 5.127 5.046 5.607 4.948	22 5.410 5.342 5.270 5.212 5.149 5.087 5.087 5.026 4.967	EX 23 5.432 5.363 5.296 5.231 5.167 5.104 5.043 4.983	PECTED USA 24 5.451 5.381', 5.313 5.247 5.192 5.192 5.057 4.996	5.467 5.397 5.328 5.261 5.195 5.131 5.067 5.007	_INYEARS Z 6 S . 480 S . 409 S . 340 S . 272 S . 206 S . 141 S . 07S S . 017	27 5.492 5.420 5.350 5.242 5.242 5.215 5.150 5.686 5.024	22 5.502 5.429 5.359 5.223 5.223 5.157 5.093 5.031	29 5.510 5.437 5.364 5.297 5.229 5.103 5.099 5.036	30 3.5 5.5 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3
z 0.I. 13.00 18.25 13.50 13.75 19.00 19.25 19.50 19.75	21 5.334 5.317 5.252 5.139 5.127 5.066 5.007	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.967 4.909	EX. 23 5.432 5.363 5.296 5.231 5.167 5.104 5.043 4.983 4.925	PECTED US1 24 5.451 5.381'. 5.313 5.247 5.192 5.119 5.057 4.796 4.937	25 5.467 5.397 5.328 5.261 5.195 5.131 5.067 5.007 4.948	Za S. 420 S. 420 S. 420 S. 340 S. 272 S. 206 S. 141 S. 073 S. 017 4. 95c	27 5.492 5.420 5.350 5.242 5.242 5.25 5.150 5.686 5.024 4.964	22 5.502 5.429 5.359 5.290 5.223 5.157 5.093 5.031 4.970	29 5.510 5.437 5.366 5.297 5.229 5.103 5.099 5.036 4.975	30 5.5 5.4 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3 5.3
1 0.1. 13.00 13.25 13.50 13.75 19.00 19.25 19.50 19.50 19.75 20.00 20.25 20.50	21 5.334 5.317 5.252 5.129 5.127 5.066 5.607 4.968 4.391 4.835 4.731	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.967 4.909 4.353	EX 23 5.432 5.363 5.296 5.231 5.167 5.104 5.043 4.983	24 24 5.451 5.381'. 5.313 5.247 5.192 5.192 5.199 5.C57 4.996 4.937 4.279	25 5.467 5.397 5.328 5.261 5.195 5.131 5.069 5.007 4.948 4.859	_INYEARS 20 5.420 5.409 5.340 5.272 5.206 5.141 5.075 5.017 4.95c 4.697	27 5.492 5.420 5.350 5.242 5.215 5.150 5.024 4.904	22 5.502 5.429 5.359 5.229 5.223 5.157 5.093 5.031 4.970 4.910	29 5.510 5.437 5.366 5.297 5.229 5.103 5.099 5.036 4.975 4.915	30 5.5' 5.4' 5.3' 5.3' 5.3' 5.1' 5.1' 5.1' 5.1' 5.1' 5.1' 5.1' 5.1
13.00 13.25 13.50 13.75 19.00 19.25 19.50 19.75 20.00 20.25	21 5.334 5.317 5.252 5.129 5.127 5.066 5.007 4.948 4.891 4.835	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.967 4.909	EX. 23 5.432 5.363 5.296 5.231 5.167 5.104 5.063 4.933 4.925 4.867	PECTED US1 24 5.451 5.381'. 5.313 5.247 5.192 5.119 5.057 4.796 4.937	25 5.467 5.397 5.328 5.261 5.195 5.131 5.067 5.007 4.948	Za S. 420 S. 420 S. 420 S. 340 S. 272 S. 206 S. 141 S. 073 S. 017 4. 95c	27 5.492 5.420 5.350 5.242 5.242 5.25 5.150 5.686 5.024 4.964	22 5.502 5.429 5.359 5.290 5.223 5.157 5.093 5.031 4.970	29 5.510 5.437 5.366 5.297 5.229 5.103 5.099 5.036 4.975	30 5.5 5.4 5.3 5.3 5.3 5.3 5.3 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.5 1 5.5 5.5
z 0.I. 13.00 18.25 13.50 13.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00	21 5.334 5.317 5.252 5.139 5.127 5.066 5.607 4.948 4.391 4.835 4.731 4.731 4.727 4.675	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.967 4.909 4.353 4.797 4.743 4.690	EX 23 5.432 5.363 5.296 5.231 5.167 5.104 5.043 4.925 4.867 4.211 4.756 4.703	PECTED US 24 5.451 5.381'. 5.313 5.247 5.192 5.119 5.C57 4.996 4.937 4.279 4.223	25 5.467 5.397 5.328 5.261 5.195 5.131 5.067 5.007 4.948 4.859 4.859	_INYEARS 20 5.480 5.409 5.340 5.272 5.206 5.141 5.073 5.017 4.95c 4.697 4.697 4.697	27 5.492 5.420 5.350 5.242 5.215 5.150 5.024 4.904 4.904 4.845	22 5.502 5.429 5.229 5.223 5.157 5.093 5.031 4.970 4.910 5.252	29 5.510 5.437 5.364 5.297 5.229 5.163 5.099 5.034 4.975 4.915 4.915 4.354	30 5.5 5.4 5.3 5.30 5.10 5.00 5.00 5.00 5.00 5.00 5.00 5.0
13.00 13.25 13.50 13.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.55 20.50 20.75 21.00 21.25	21 5.334 5.317 5.252 5.129 5.127 5.066 5.007 4.948 4.391 4.835 4.731 4.727 4.675 4.624	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.967 4.909 4.353 4.797 4.743 4.650 4.e33	EX. 23 5.432 5.363 5.296 5.231 5.167 5.106 5.043 4.925 4.867 4.311 4.756 4.703 4.650	PECTED USI 24 5.451 5.381', 5.313 5.247 5.132 5.119 5.057 4.796 4.937 4.379 4.223 4.767 4.713 4.660	5.467 5.397 5.328 5.261 5.195 5.131 5.067 5.007 4.948 4.859 4.322 4.776	_INYEARS ZA S. 480 S. 409 S. 340 S. 272 S. 206 S. 141 S. 073 S. 017 4. 95c 4. 697 4. 697 4. 607 4. 723	27 5.492 5.420 5.350 5.242 5.242 5.242 5.024 4.904 4.904 4.845 4.790	22 5.502 5.429 5.359 5.223 5.223 5.157 5.031 4.970 4.970 4.910 4.910 4.795	29 5.510 5.437 5.366 5.297 5.229 5.163 5.099 5.036 4.975 4.975 4.915 4.255 4.729	30 3.51 5.44 5.37
13.00 13.25 13.50 13.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.75 21.00 21.25 21.50	21 5.334 5.317 5.252 5.129 5.127 5.066 5.007 4.948 4.391 4.835 4.731 4.727 4.675 4.624 4.573	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.967 4.909 4.353 4.797 4.743 4.650 4.638 4.638	EX. 23 5.432 5.363 5.296 5.231 5.167 5.104 5.063 4.923 4.925 4.867 4.311 4.756 4.703 4.650 4.598	PECTED US 24 5.451 5.381'. 5.313 5.247 5.192 5.192 5.199 5.057 4.794 4.223 4.794 4.223 4.767 4.279 4.223 4.767 4.213 4.660 4.603	EFUL LIFE 25 5.467 5.397 5.328 5.261 5.195 5.131 5.069 5.007 4.948 4.859 4.859 4.332 4.776 4.721 4.668 4.15	_INYEARS 20 5.480 5.409 5.340 5.272 5.206 5.141 5.073 5.017 4.956 4.697 4.697 4.697 4.697 4.697 4.697 4.697 4.674 5.674 5.22	27 5.492 5.420 5.350 5.242 5.215 5.150 5.024 4.904 4.904 4.845 4.790 4.734 4.680 4.527	22 5.502 5.429 5.259 5.223 5.157 5.093 5.031 4.970 4.910 4.910 4.910 4.910 4.910 4.95 4.739 4.455 -331	29 5.510 5.437 5.366 5.297 5.229 5.103 5.099 5.036 4.975 4.915 4.915 4.915 4.915 4.915 4.915 4.915 4.915 4.915 4.915 4.915 4.915 4.928 4.743 4.638	30 5.51 5.44 5.37 5.30 5.10 5.10 5.10 5.10 5.10 5.10 5.10 5.1
13.00 13.25 13.50 13.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.55 20.50 20.75 21.00 21.25	21 5.334 5.317 5.252 5.129 5.127 5.066 5.007 4.948 4.391 4.835 4.731 4.727 4.675 4.624	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.967 4.909 4.353 4.797 4.743 4.650 4.e33	EX. 23 5.432 5.363 5.296 5.231 5.167 5.106 5.043 4.925 4.867 4.311 4.756 4.703 4.650	PECTED USI 24 5.451 5.381', 5.313 5.247 5.132 5.119 5.057 4.796 4.937 4.379 4.223 4.767 4.713 4.660	EFUL LIFE 23 5.467 5.397 5.328 5.261 5.195 5.131 5.067 5.007 4.942 4.859 4.859 4.32 4.776 4.721 4.662	_INYEARS Z a S . 480 S . 409 S . 340 S . 272 S . 206 S . 141 S . 075 S . 017 4 . 95c 4 . 697 4 . 697 4 . 728 4 . 728 4 . 674	27 5.492 5.420 5.350 5.232 5.215 5.150 5.636 5.024 4.904 4.904 4.904 4.904 4.904 4.730 4.734 4.680	22 5.502 5.429 5.290 5.223 5.157 5.093 5.031 4.970 4.910 4.910 4.925 4.739 4.655	29 5.510 5.437 5.366 5.297 5.229 5.103 5.099 5.036 4.975 4.915 4.915 4.915 4.75 4.75	30 5.5' 5.4' 5.3' 5.3' 5.3' 5.1' 5.1' 5.1' 5.1' 5.1' 5.1' 5.1' 5.1
z 0.I. 13.00 18.25 13.50 13.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.50 20.50 21.25 21.50 21.75 22.00	21 5.334 5.317 5.252 5.127 5.066 5.007 4.948 4.591 4.835 4.731 4.727 4.675 4.624 4.573 4.524 4.476	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.909 4.353 4.797 4.743 4.690 4.638 4.587 4.587 4.587 4.587 4.587	EX 23 5.432 5.363 5.296 5.231 5.167 5.104 5.043 4.925 4.867 4.211 4.756 4.703 4.650 4.598 4.548 4.499	PECTED US 24 5.451 5.381', 5.381', 5.381', 5.247 5.192 5.192 5.199 4.227 4.799 4.223 4.707 4.223 4.767 4.713 4.660 4.557 4.507	FUL LIFE 25 5.467 5.397 5.328 5.261 5.195 5.131 5.067 5.007 4.948 4.859 4.322 4.776 4.721 4.668 4.514	INYEARS _ZA S. 480 S. 409 S. 340 S. 272 S. 204 S. 141 S. 073 S. 017 4. 95c 4. 675 5. 017 4. 95c 4. 697 4. 697 4. 697 4. 697 4. 697 4. 697 4. 697 4. 672 4. 723 4. 728 4. 674 5. 70 4. 520	27 5.492 5.420 5.350 5.242 5.242 5.255 5.150 5.686 5.024 4.904 4.904 4.904 4.845 4.734 4.680 4.575 4.575 4.524	22 5.502 5.429 5.359 5.290 5.223 5.157 5.093 5.031 4.970 4.910 4.910 4.924 4.739 4.655 -031 4.579 4.528	29 5.510 5.437 5.366 5.297 5.229 5.103 5.099 5.036 4.075 4.015 4.015 4.015 4.729 4.743 4.628 4.635 4.582 4.531	30 3.5 5.3 5.3 5.3 5.3 5.3 5.3 5.3
z 13.00 13.25 13.50 13.75 19.00 19.25 19.50 19.75 20.00 20.25 20.50 20.50 20.50 21.25 21.00 21.25 21.50 21.75 22.00 22.25	21 5.334 5.317 5.252 5.129 5.127 5.066 5.607 4.948 4.391 4.835 4.731 4.835 4.731 4.727 4.675 4.624 4.573 4.524 4.573	22 5.410 5.342 5.270 5.212 5.149 5.087 5.026 4.909 4.353 4.797 4.743 4.690 4.638 4.638 4.537 4.537 4.537	EX. 23 5.432 5.363 5.296 5.231 5.167 5.104 5.043 4.925 4.867 4.911 4.756 4.703 4.650 4.598 4.548 4.548 4.548	PECTED US 24 5.451 5.381'. 5.313 5.247 5.192 5.192 5.119 5.057 4.794 4.223 4.794 4.223 4.767 4.713 4.660 4.603 4.557 4.507 4.507 4.453	FUL LIFE 23 5.467 5.397 5.328 5.261 5.135 5.131 5.067 5.007 4.942 4.859 4.859 4.859 4.859 4.859 4.514 4.514 4.514	INYEARS _Z A S . 480 S . 409 S . 340 S . 272 S . 206 S . 141 S . 017 S . 017 4 . 95c 4 . 697 4 . 697 5 . 200 4 . 697 5 . 200 4 . 697 5 . 200 5 . 200 5 . 2017 5 . 2	27 5.492 5.420 5.350 5.232 5.232 5.235 5.150 5.024 4.905 4.575 4.575	22 5.502 5.429 5.290 5.223 5.157 5.093 5.031 4.970 4.910 4.910 4.910 4.925 4.739 4.455 -031 4.579 4.528 4.473	29 5.510 5.437 5.366 5.297 5.229 5.103 5.039 5.036 4.975 4.915 4.915 4.915 4.925 4.715 4.635 4.635 4.552 4.552 4.531 4.431	30 3.5 5.3 5.3 5.3 5.3 5.3 5.3 5.3
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TABLE 1

RETURN ON INVESTMENT PERCENTAGE BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW) AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY 01/06/84 ۵

X	~~~~				*****					
R.0.1.	1	2	3	4	5	6	7	8	9	10
24.00	0.806	1.457	1.981	2.404	2.745	3.020	3,242	3.421	3.566 .	
24.25	0:805.	1.453	1.974	2.393',	2.731	3.003	3.222	3.398	3.539	3.653
24.50	0.803	1.448	1.967	2,383	2.717	2.986	3.201	3.375	3.514	3.625
24.75	0.802	1.444	1.959	2.372	2.703	2.968	3.181	3.352	3.488	3.598
25.00	0.800	1.440	1.952	2.362	2.689	2.951	3.101	3.329	3.403	3.571
	**********	*********	*********		********	26222222	**********		*********	=======
X			E)	PECTED US	EFUL LIFE	IN YEARS				
a.o.I.	11	12	13	14	15 -	16	17	15	19	20
24.00	3.776	3.851	3.912	3.962	4.001	4.033	4.059	4.080	4.097	4.110
24.25	3.745	3.819	3.879	3.926 3		3.996	4.021	4.041	4.057	4.070
24.50	3.715	3.787	3.845	3.892	3.929	3.957	3.993	4.003	4.018	4.03
24.75	3.686	3.756	3.812	3.858	3.894	3.923	3.945	5.965	3.930	3.992
25.00	3.656	3.725	3.760	3.824	3.859	3.887	3.910	3.928	. 3.942	3.95
			E)	PECTED US	EFUL LIFE	IN YEARS				
X 8.3.I.	21	22	23	24	25	26	27	28	29	10
24.00	4.121	4.130	4.137	4.143	4.147	4.151	4.154	4.157	4.159	4.100
24.25	4.081	4.089	4.076	4.1014	4.106	4.109	4.112	4.114	4.116	4.11
24.50	4.041	4.049	4.055	4.060	4.065	4.068	4.071	4.073	4.075	4.070
24.75	4.002	4.009	4.015	4.020	4.024	4.028	4.030	4.032	4.034	4.03
25.00	3.963	3.970	3.976	3.981	3.985	3.988	3.990	3.992	3.994	3.99

<u>Table 2</u>

Reference Annual Percent Return on Investment For Applications Received Before February 1, 1993

Year Construction <u>Completed</u>	Reference Percent <u>Return</u>
1977	21.0
1978	21.9
1979	22.5
1980	23.0
1981	23.6
1982	23.4
1983	21.5
1984	19.9
1985	18.5
1986	17.4
1987	16.1
1988	17.1
1989	18.3
1990	18.3
1991	18.1
1992	17.0

Calculation of the reference percent return was made by averaging the average annual percent return before taxes on stockholders' equity for all manufacturing corporations as found in the <u>Quarterly Financial Report for Manufacturing, Mining, and Trade</u> <u>Corporations</u>, published by the U.S. Department of Commerce, Bureau of the Census, for the five years prior to the year shown.

6/92

ATTACHMENT A-23

<u>Table 2</u>

Reference Annual Percent Return on Investment For Applications Received on or After February 1, 1993

Year Construction <u>Completed</u>	Reference Percent <u>Return</u>
1989	7.3
1990	7.3
1991	7.2
1992	6.8

Calculation of the reference percent return was made by averaging the average annual percent return before taxes on total assets for all manufacturing corporations as found in the <u>Quarterly</u> <u>Financial Report for Manufacturing, Mining, and Trade</u> <u>Corporations</u>, published by the U.S. Department of Commerce, Bureau of the Census, for the five years prior to the year shown.

1/93

ATTACHMENT A-24

DISCUSSION OF PROPOSED RULE AMENDMENTS

Definition of "Annual Incremental Cash Flow" OAR 340-16-030(1)(a), Page A-8

A definition of annual incremental cash flow has been added to the rule. The existing rule contains a definition for average annual cash flow, however, this existing definition will not be adequate for the method of analysis that will be employed to determine percent allocable in the amended rule.

Definition of "Internal Rate of Return" OAR 340-16-030(1)(f), Page A-8

A definition of Internal Rate of Return (IRR) has been added to the rule. This is a relatively standard definition of the IRR that has been modified to reflect the other definitions in the rule. It was necessary to provide a definition of the IRR since the amended rule proposes that this technique be used to determine the percent allocable for certain types of businesses.

Definition of "Integral" Pollution Control Facilities OAR 340-16-030(1)(g), Page A-9

The Department has concluded that no one factor can be used to determine whether pollution control facilities are integral to the operation of the applicant's business. In addition to identifying a limited set of industries in the amended rule (commercial landfills, recycling businesses, and environmental service providers), the Department felt that it was reasonable to provide a set of factors that could be used to determine when this is the case. These factors are the percent of the total assets represented by pollution control facilities, whether the pollution control facilities were installed in response to market demand for such facilities, the extent to which the total revenue of the applicant is increased by the presence of pollution control facilities, or the extent to which the operating expenses of the business are related to operation of pollution control facilities. Additional factors could be used, however, the Department believes that the above factors will identify most instances where pollution control facilities are integral to the operation of the business.

<u>Calculation of Facility Percent Allocable Where Pollution Control Facilities are Integral</u> to the Operation of an Applicant's Business OAR 340-16-030(5)(a) through (c), Pages A-10 and A-11

For facilities identified by the above definitions, the amended rule will change the method used to determine the percent allocable to pollution control. The primary method of analysis will compare the average rate of return (profit before taxes as a percent of total assets) for the applicant's industry, as determined from the applicant's primary four digit Standard Industrial Classification (SIC), to the reference rate of return. The industry average rate of return will be obtained from a standard and widely available reference source. If the industry average rate of return is greater than the reference rate, the percent allocable will be 0 percent. If the industry average rate of return is less than the reference rate, the percent allocable will be determined using the same formula as in the existing rule. The determination made by this method will be relatively simple and will not involve an extensive evaluation. These rule amendments will change the method of analysis only for applicants that are subject to the "integral" pollution control facilities definition.

Example Using the Proposed Methodology

The following is an example of the use of the proposed methodology for an applicant whose primary four digit SIC is 4953, "Refuse Systems." The reference source definition for this SIC is as follows:

"Systems primarily engaged in the collection and disposal of refuse by processing or destruction or in the operation of incinerators, waste treatment plants, landfills, or other sites of disposal of such materials. Does not include companies primarily engaged in collecting and transporting refuse without disposal."

The industry rate of return as taken from the reference source is:

	<u>For Sta</u> 1988	<u>tement 1</u> <u>1989</u>	<u>1990</u>	ling Marc <u>1991</u>	<u>ch 31,</u> 1992	5 Year <u>Averaqe</u>
<pre>% Profit Before Taxes to Total Assets</pre>	9.3%	9.6%	7.8%	9.0%	7.4%	8.6%
Number of statements	187	189	206	226	268	

From this analysis, the industry average profit before taxes as a percent of total assets is 8.6 percent. The reference rate of return for facilities completed in 1992 is 6.8 percent. Since the industry median rate of return is higher than the reference rate of return, the percent allocable for facilities in this industrial classification as determined using the proposed methodology is 0 percent.

The reference source uses financial statements and tax returns dated over a period of time rather than as of a specific date. For example, the column indicating statement dates ending March 31, 1992 includes all financial statements and tax returns submitted for this SIC with fiscal years ending between April 1, 1991 and March 31, 1992. The number of statements indicates the sample size of financial statements and/or tax returns used by the reference source to compile the industry data.

Comprehensive Cash Flow Evaluation Methodology OAR 340-16-030(5)(d), Pages A-11 and A-12

Under the existing rule, the return on investment and percent allocable are determined by evaluating the cash flow resulting from the claimed facility. Annual cash flow is defined as the difference between gross annual income from the facility and the gross annual expense of operating the claimed facility. The resulting cash flow is averaged over the first five years of operation of the facility. The claimed facility cost and average annual cash flow are used to determine a return on investment factor, which is used to determine the facility return on investment over the useful life of the facility. Finally, the facility return on investment is compared to the reference rate of return to determine the percent allocable.

The Department has identified several problems with this methodology as it applies to certain types of facilities, including:

- o For many types of facilities, it is difficult to determine annual income and expense. This is a particular problem in industries where pollution control facilities represent a substantial portion of the "productive" assets of the business.
- A facility may generate substantial cash flow beyond the five year time frame used in the analysis, but before the end of its useful life.

The proposed method of evaluating the cash flow resulting from construction or installation of a facility will involve a comparison of the applicant's cash flow after installation of the facility to a base line cash flow assuming that the facility had not been installed. This will allow the Department to evaluate the incremental cash flow directly attributable to installation of a facility. These incremental cash flows over the useful life of the facility versus the cost of the claimed facility will be used to calculate an internal rate of return. The calculated internal rate of return will be compared to the reference rate of return to determine the percent allocable.

The rule will be amended to include a listing of the information that the applicant will be required to submit in order for the Department to perform this analysis. In addition, the applicant will be required to provide authorization for the Department to contract with an independent certified public accountant, at the applicant's expense, to assist in analyzing the applicant's financial information. OAR 340-16-045(6) currently provides that the Department can increase the application processing fee when an application involves an unusually extensive analysis to determine the portion of the facility cost allocable to pollution control.

<u>Change in Reference Rate of Return</u> OAR 340-16-030(6)(d), Page A-12

Return before taxes on Stockholders' Equity (ROSE) is the measure that is currently used as the reference rate of return in the percent allocable determination. The source for this data is the <u>Quarterly Report for Manufacturing</u>, <u>Mining and Trade Corporations</u>, published by the U.S. Department of Commerce, Bureau of the Census. The reference rate is calculated by averaging the annual percent return before taxes for the five years prior to the year the pollution control facility was completed.

One of the assumptions implicit by using ROSE is that funds for pollution control investments are derived solely from equity investors. It is doubtful that this is the case. Typically, equity represents less than 50 percent of the capital structure of the firm. It is more likely that the marginal dollar of investment in pollution control is derived from either internally generated cash, debt, or a combination of debt and equity.

Pollution control facilities are assets of the business. When given the choice of investing in pollution control assets or in productive assets, the business will choose to invest in the productive assets unless the pollution control investment generates a return at least equal to the return that the business achieves on productive assets. On the other hand, if a business could generate a higher return on pollution control investments than on productive assets, it would make these investments regardless of environmental regulations. It is unreasonable for a firm to expect that pollution control investments should be judged on a criteria different than other assets and, therefore, the Department believes that a reference rate of return based on profit before taxes as a percent of total assets is appropriate.

Other reference rates could be used. For example, a measure commonly used by companies to evaluate a corporation's performance is return on invested capital. This measure is similar to return on total assets, however, the return is calculated using only the assets that are considered productive assets. While this rate as a reference has some validity, it is not a published rate and there are interpretation issues in defining productive assets. This would require the Department to calculate the reference from other source data.

Sources of Reference Rate and Industry Data

The current reference is based on an average of all manufacturing firms and does not consider industry differences. The <u>Quarterly Report</u> contains data for manufacturing firms by two digit SIC and it is conceivable that this level of detail could be used to develop a table of reference rates by manufacturing industry. Few other sources are readily available for this type of data and applying such a table to non-manufacturing industries would be a difficult task.

Robert Morris Associates (RMA) publishes detailed financial data by four digit Standard Industrial Classification in their <u>Annual Statement Studies</u>. Commercial lenders and financial executives rely heavily on this data to evaluate financial performance relative to industry standards. This publication is generally available in major libraries or from the RMA. The data is compiled from actual financial statements and tax returns submitted to RMA by member banks. The 1992 edition includes data generated from over 95,000 statements. Each edition contains five years of historical data. While the <u>Studies</u> contain financial information for a wide range of industries, there are some SICs that are not covered. In the event that the industry data reference source does not contain information specific to the applicant's industry, the Department and applicant will determine whether an alternate SIC is applicable. In the event that no alternate is applicable, the applicant will be required to submit detailed financial information.

Effective Date of Rule Amendments OAR 340-16-030(5), Page A-10

Rule amendments adopted pursuant to ORS 183.335 become effective on filing with the Secretary of State. The proposed rule amendments stipulate that these rule amendments would apply to applications received on or after February 1, 1993. The Department anticipates that if the proposed amendments are adopted by the Commission at the January 29, 1993 meeting, it will be possible to file the amended rule with the Secretary of State by February 1.

ATTACHMENT B-5

State of Oregon DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal for Proposed Temporary Amendments to Pollution Control Facilities Tax Credit Rule

Fiscal and Economic Impact Statement

Introduction

The Department is proposing temporary amendments to the pollution control facilities tax credit rule that would change the method used to determine the portion of the facility cost properly allocable to pollution control. These amendments would apply primarily to applicants and industries that have pollution control facilities as an integral part of their business activities.

The likely overall impact of the proposed amendments will be a reduction in the amount of tax credits certified. Since the Department has no control over the type, number, or total claimed facility cost of applications that could potentially be submitted, it is difficult for the Department to estimate the total possible fiscal and economic impact of the proposed rule amendments.

The Department estimates that these rule amendments would have applied to approximately 14 applications that were certified by the Commission in calendar year 1992 representing a total certified cost of \$21 million. This total represents less than 10 percent of the number of certificates issued in 1992, but approximately two-thirds of the total amount of tax credits certified in 1992.

These amendments will not result in an increase in the number of tax credit applications submitted, in total claimed facility costs, or in total certified costs. Any facilities or portions of facilities currently ineligible for program benefits will remain ineligible.

General Public

The general public likely will not incur any additional costs as a result of the proposed rule amendments.

Tax credits certified by the Commission can be claimed by a certificate holder as a direct credit against the certificate holder's State income tax liability, or for cooperatives and non-profit corporations, as a credit against ad valorem taxes. Since the proposed amendments will result in a loss or reduction of program benefits for some applicants, these credits will not be available to the applicant. Consequently, the general public will benefit from increases in income or ad valorem tax collections.

The Department expects that commercial landfill operators in the state will realize a reduction in program benefits. Since these landfill operators provide land disposal services for municipal solid waste collectors, it is possible that the landfill operators use potential pollution control tax credits to reduce fees charged to dispose of solid waste. Fees for disposal of solid waste are determined by a number of factors including competition from both in-state and out-of-state firms, transportation costs, etc. The Department has no evidence to suggest that the expectation of pollution control facilities tax credits impact landfill operators' fee structures.

Small Business

These rule amendments will apply primarily to businesses where pollution control facilities are integral to the operation of the businesses. Typically, this will be in capital intensive industries. While a large number of small businesses utilize the tax credit program (primarily for CFC recovery equipment and Underground Storage Tank upgrades), the Department does not expect that a large number of small businesses will be impacted by the proposed rule amendments.

Some small waste recycling businesses and environmental service providers could realize a reduction in or loss of program benefits. For this to be the case, however, these businesses would have to be profitable to such an extent that the proposed percent allocable determinations would reduce their potential benefits. There is little rationale for the State to subsidize otherwise profitable businesses through the use of tax credits. In addition, pollution control facilities installed by these types of businesses are generally discretionary and are not installed in response to environmental requirements.

All applicants will have the opportunity to provide detailed financial information where they believe that the proposed rule does not adequately consider their specific financial situation. This could present a greater application preparation burden and expense for some small businesses in highly profitable industries.

Large Business

Large businesses with significant amounts of capital invested in pollution control facilities are the most likely parties to be directly impacted by the proposed rule amendments. These businesses will likely see a reduction in program benefits. As is the case for small businesses, this reduction will occur only for profitable businesses. In

addition, any applicant adversely impacted by these amendments will have the opportunity to provide the Department with information necessary to determine the facility return on investment and percent allocable through an alternate methodology.

Local Governments

Local governments are not eligible for the tax credit program certification and, therefore, a reduction in program benefits will not have a direct financial impact on local governments.

The tax credit program statutes and rules do allow cooperatives and non-profit corporations to claim credits against ad valorem taxes. A reduction in tax credit program benefits to such organizations could potentially result in an increase in ad valorem tax collections by local governments. Any such increase would likely be small since few of the organizations these rule amendments are likely to affect are cooperatives or non-profit corporations.

State Agencies

The Department is already involved in processing tax credit applications and the proposed rule amendments will not impact staffing or budget requirements. The amendments could result in fewer tax credit applications being submitted and a reduction in workload for Department staff. Such a reduction would also be accompanied by a reduction in program revenue from tax credit application fees.

The changes in the methodology used to calculate the facility return on investment and percent allocable could simplify application processing. This may reduce the number of Department staff hours required to process tax credit applications.

There should be no impact on other agencies.

<u>Assumptions</u>

There are no quantitative assumptions used in this analysis. As noted above, it is difficult for the Department to estimate the magnitude of the fiscal and economic impact of the proposed rule amendments because the Department has little influence over the type or number of applications that may be submitted.

Rule Adoption Item
 Action Item
 Information Item

Agenda Item <u>F</u> January 29, 1993 Meeting

Title:

Report on Tualatin Basin Nonpoint Source Control Program Implementation and Compliance Date

Summary:

There have been a number of accomplishments in the area of NPS control in the Tualatin subbasin since TMDLs were set and implementation efforts began. In spite of these accomplishments, it now appears that the TMDL for phosphorus will not be achieved by the June 30, 1993 compliance date set in rule. Because of the establishment of the TMDL, NPS control efforts have been focused almost entirely on phosphorus even though concerns exist with several other water quality parameters.

The Commission has the authority to allow activities to continue in the Tualatin watershed even if TMDLs are not achieved by the compliance date (without the need to change the date in the rule). Conditions under which such authorization would occur have not been established. Accomplishments, problems, and alternatives for action are presented. Discussion is requested.

Department Recommendation:

It is recommended that the Commission discuss the report and provide guidance to the Department regarding preferred options for proceeding with pollution control efforts in the Tualatin subbasin after the June 30, 1993, TMDL compliance date, and discuss any rule changes that may need to be developed.

Mttel Walyamot Report Author	Michael Doms Division Administrator		 Director			Jana	
January 13, 1993	[†] A large available	print			this	report	is

Memorandum[†]

Date: January 12, 1993

To: Environmental Quality Commission

From:

Fred Hansen, Director

Subject: Agenda Item F, January 29, 1993, EQC Meeting

<u>Report on Tualatin Basin Nonpoint Source Control</u> <u>Program Implementation and Compliance Date</u>

Statement of Purpose

This agenda item is intended to provide an update on the status of efforts to control nonpoint source (NPS) water pollution in the Tualatin River subbasin and meet a June 30, 1993 compliance date. The Tualatin River and its tributaries have a number of NPS pollution problems that have resulted in degradation of water quality. The purpose of the NPS control efforts is to improve the overall water quality of the river and its tributaries, and to achieve a Total Maximum Daily Load (TMDL) for total phosphorus. The TMDL was set at a level that is intended to limit algae growth to prevent violations of water quality standards for dissolved oxygen and pH. Prevention of these water quality standard violations would help to protect the designated beneficial uses of the river. It now appears that full achievement of the TMDLs will not occur by the compliance date set in rule. The Department expects to return to the Environmental Quality Commission (Commission, EQC) at a future meeting with recommendations as to how to proceed beyond the compliance date. Discussion and input on this report by the Commission is sought.

Background

The Tualatin River and its tributaries have been known to have serious NPS related water pollution problems for several years. There are concerns with turbidity, low dissolved oxygen, temperature, bacteria, sediment and nutrients (phosphorus). Beneficial uses affected include municipal water, irrigation, fish, other aquatic life, recreation and aesthetics.

[†]A large print copy of this report is available upon request.

On July 8, 1988, the Commission adopted a rule which established TMDLs for total phosphorus and ammonia nitrogen in the Tualatin River. The rule set a compliance date of June 30, 1993, for achieving the TMDLs. In a separate EQC action, target dates were set for development of plans, by Designated Management Agencies (DMAs), to implement programs which would result in achievement of the TMDLs. Most of these plans were approved by the Commission in 1990. The plan for reducing NPS pollution from agricultural sources has twice been approved for a limited duration pending further improvements to the The current limited approval for agriculture will plan. expire at the end of April of 1993. Implementation of all plans is underway.

The DMAs, specified in rule, with responsibility for development and implementation of NPS control plans are: Washington, Clackamas, and Multnomah Counties, all incorporated cities in the Tualatin River and Lake Oswego subbasins, the Oregon Department of Agriculture (ODA), and the Oregon Department of Forestry (ODF). A Surface Water Management Authority was established in Washington County under the auspices of Unified Sewerage Agency (USA). A single Urban Area Surface Water Management Plan was developed by USA which covers most of the cities in the basin and the urban portions of Washington County. The cities of Portland, Lake Oswego, and West Linn developed separate management plans. Clackamas County, Multnomah County, ODA and ODF also developed separate plans.

In addition to their NPS control plan, USA was required to undertake facilities planning to determine how sewage treatment plants in the basin would be upgraded to meet the TMDL requirements. The Commission approved USA's Wastewater Facilities Plan in August of 1990. Construction is now nearing completion. The ammonia nitrogen TMDL has been achieved and phosphorus from sewage treatment plants has been greatly reduced. The remaining phosphorus reductions needed will have to come from nonpoint source reductions. Depending on how it is approached, control of NPS pollution will also go a long way toward solving the other problems of the river and its tributaries (turbidity, sediment, bacteria, temperature).

NPS Accomplishments to Date:

There have been a number of accomplishments in the area of NPS pollution since the TMDL requirements were adopted. Major accomplishments include:

- Completion and beginning of implementation of Program Plans.
- Phosphate detergent ban.
- Establishment and implementation of Surface Water Management Districts and fees.
- Establishment and implementation of a federal Hydrologic Unit Area to address agricultural water quality concerns in the Dairy and McKay Creeks areas.
- Identification of potential Best Management Practices (BMPs) and beginning of implementation.
- Development of Surface Water Quality Facilities Technical Guidance Handbook; installation of some facilities.
- Erosion Control Ordinances for most jurisdictions.
- Establishment of fee mechanism to charge a fee in-lieu of building on-site storm water treatment facilities.
- Demonstration projects implemented in both agricultural and urban areas.
- Public Education/Information programs implemented.
- Container Nursery program established and implemented.
- Monitoring programs established.

Water Quality Results:

Monitoring data indicate that there have been dramatic reductions in ammonia nitrogen and phosphorus concentrations in the lower river over the last two years. The TMDL for ammonia nitrogen has been achieved. The TMDL for total phosphorus has not been achieved. The observed reductions are due primarily to improvements at USAs two large sewage treatment plants. Phosphorus concentrations up stream of these facilities have not changed significantly (see figures

in Attachment 1). At this time it appears that, in spite of dramatic improvements in point source contributions, the TMDL compliance date for phosphorus will not be met. In a few cases, where problems related to specific confined animal feeding operations (CAFO) have been identified and corrected, improvements have been seen in tributary streams. In general, however, above the sewage treatment plants and on the tributaries there have been few demonstrated improvements in water quality parameters of concern (nutrients, bacteria, sediment, temperature) to date. Monitoring of demonstration projects have shown, however, that reductions in the concentration of pollutants leaving demonstration sites can be achieved. Wide-spread implementation of practices would be expected to result in improvements of water quality in the river and its tributaries.

Institutional Barriers and Technical Questions:

The DMAs, Department, and others have identified a number of constraints which have affected the implementation of some NPS controls and, therefore, inhibited progress toward meeting the June 30, 1993, compliance date established in 1988. The major difficulties include:

- Tendency to focus efforts only on phosphorus while not addressing other water quality parameters of concern.
- Complicated regulatory requirements and timeliness of obtaining permits for construction of pollution reduction facilities.
- Questions about "background" and groundwater contributions of phosphorus.
- Pending Revisions to TMDLs, Waste Load Allocations (WLA), Load Allocations (LA).
- Establishment of new stormwater permit programs.
- Lack of adequate authorities.
- Funding.
- Need for basin- or subbasin-wide approaches.

Authority of the Commission with Respect to the Issue

The rule which established the TMDLs for the Tualatin River subbasin (OAR 340-41-470 (3) (a)) states that after June 30. 1993 "no activities shall be allowed ..." that cause the monthly median concentrations of total phosphorus to exceed specified values at specified points "without the specific authorization of the Commission" (see Attachment 2 for complete text of the rule). The rule provides no guidance as to the conditions under which the Commission would authorize further activities.

Because it now appears that the compliance date will not be met, the Commission will need to consider, prior to June 30, 1993, whether activities that contribute to NPS pollution should be allowed to continue in the watershed. If activities are to be authorized, the Commission will need to consider whether the authorization should be across the board or whether specific activities should be disallowed or restricted in some way. Other issues that may need to be dealt with include: whether the authorization should end at a specified date, after which re-consideration would occur; whether conditions under which authorization can occur should be defined; whether the Department should propose rule making to deal with specific problem areas on an interim basis while other authorities or approaches are being developed.

Alternatives and Evaluation

Relative to the compliance date, there are at least five alternatives for proceeding with efforts to reduce NPS pollution after June 30, 1993:

1. No Action.

Under this option the compliance date would be allowed to pass with no further action taken by the Commission or the Department.

Pros: No rule changes or Commission action needed. The DMAs would be allowed to continue implementing programs as they are now.

Cons: No clear direction as to any needed changes in implementation. No specific schedules for actions to occur beyond June 30, 1993. Potential for law suit.

2. Change the Compliance Date in the Rule.

In this scenario the June 30, 1993 compliance date in the current rule would be changed to some future date. Schedules could be set-up to achieve the TMDL goals prior to the new date.

Pros: Neither the river nor any of the DMAs would be in non-compliance with the TMDL rule because the compliance date would not have past.

Cons: It would be extremely difficult to specify what the new date should be. Changing the date would not change the fact that the river currently does not comply with water quality standards and has not for some time.

3. Stipulated Final Order.

A stipulated final order (SFO) could be negotiated with each DMA.

Pros: An SFO is a legal settlement of a case usually involving failure to comply with conditions of a permit. Once entered into, the SFO would provide an enforceable schedule for coming into compliance. No rule change would be needed.

Cons: An SFO may give the impression that DMAs are in non-compliance because of poor performance and are under an enforcement action. Would result in rigid compliance schedules. SFOs may not be appropriate tools for use with other state agencies (ODA/ODF).

4. EQC Authorization with Memorandum of Agreement.

The EQC could authorize activities to continue and direct the Department and DMAs to enter into some form of Memorandum of Agreement (MOA) indicating how and when the DMAs will proceed with implementation of NPS controls.

Pros: More flexibility than with an SFO. MOA can be modified as conditions and information change. No rule change necessary.

Cons: Because an MOA is not a legal settlement of a case, there may be more potential for court challenges.

5. EQC Authorization with Clarification of Conditions for Authorization and Implementation and Compliance Schedule.

This option is similar to alternative 4 in that the EQC would be using its authority to allow activities to continue after the June 30, 1993, but conditions under which activities would be allowed would be clarified and an enforceable compliance schedule would be added.

Pros: Conditions under which future activities could be authorized would be included in the rule. One of the conditions could be that DMAs be adhering to detailed and enforceable implementation and compliance schedules which have been approved by the Department or Commission. This would accomplish several of the benefits of an SFO without the stigma associated with non-compliance.

Cons: Specifying, in rule, the conditions under which future activities can be authorized may reduce flexibility in future authorizations.

The Department currently favors alternative 5. Schedules under this alternative could include having DEQ prepare temporary rules as necessary to deal with some issues on an interim basis while other authorities or approaches are developed.

Summary of Public Input Opportunity

The public has been involved in these issues for several The Department held public hearings prior to bringing years. the TMDL rule to the Commission for proposed adoption in 1988. The Department also held public hearings on the nonpoint source pollution control program plans prior to bringing those to the Commission for consideration in 1990. Some of DMAs have held public forums and hearings of their own -- all have been involved in public awareness/education programs. Earlier in January of this year, the Department conducted information meetings to inform the public of results of a Tualatin River Study mandated by the 1991 legislature. The public will have the opportunity to review and respond to the study results. The Department will conduct formal public hearings, prior to bringing any recommended rule changes and/or new implementation and compliance schedules to the Commission.

<u>Conclusions</u>

- There have been a number of accomplishments in the area of NPS control in the Tualatin subbasin since implementation efforts began.
- A number of technical questions remain and are likely to remain for some time.
- Institutional barriers have been identified.
- The compliance date for achieving TMDLs for total phosphorus in the Tualatin subbasin will not be met.
- The Commission has the authority to allow activities to continue in the Tualatin watershed even if TMDLs are not achieved by the date established in the rule. Conditions under which such authorization can occur have not been established.
- Alternatives for action relative to the impending compliance date have been identified and need discussion.

Intended Future Actions

Prior to June 30, 1993, the Department, working with the DMAs and the public, will develop any necessary proposed rule language and new implementation and compliance schedules, hold public hearings, and return to the Commission with recommended actions.

Department Recommendation

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department regarding options for proceeding with pollution control efforts in the Tualatin subbasin after the June 30, 1993 TMDL compliance date, and regarding any potential rule changes that should be developed.

<u>Attachments</u>

Attachment 1: OAR 340-41-470

Attachment 2: Total Phosphorus Concentrations

Reference Documents (available upon request)

Nonpoint Source Control Plans received to fulfill the requirements of OAR 340-41-470 (3). Received from:

Unified Sewerage Agency of Washington County City of Portland City of Lake Oswego City of West Linn Clackamas County Multnomah County Oregon Department of Agriculture Oregon Department of Forestry

Approved:

Section:

Grow for Andy Schoedel el pours

Division:

Report Prepared By: Mitch Wolgamott

Phone: 229-6691

Date Prepared: December 24, 1992

DMW:crw SW\WC10\WC11063.5 January 13, 1993

Attachment 1 Agenda Item F January 29, 1993, EQC Meetine

Special Policies and Guidelines

340-41-470 (1) In order to preserve the existing high quality water for municipal water supplies and recreation, it is the policy of the EQC to prohibit any further waste discharges to the waters of:

(a) The Clackamas River Subbasin;

(b) The McKenzie River Subbasin above the Hayden Bridge (river mile 15);

(c) The North Santiam River Subbasin.

(2) The Environmental Quality Commission shall investigate, together with any other affected state agencies, the means of maintaining at least existing minimum flow during the summer low flow period.

(3) In order to improve water quality within the Tualatin River subbasin to meet the existing water quality standard for dissolved oxygen, and the 15 ug/1 chlorophyll *a* action level stated in OAR 340-41-150, the following special rules for total maximum daily loads, waste load allocations, load allocations, and implementation plans are established:

(a) After completion of wastewater control ilities and implementation of management plans

proved by the Commission under this rule and no later than June 30, 1993, no activities shall be allowed and no wastewater shall be discharged to the Tualatin River or its tributaries without the specific authorization of the Commission that cause the monthly median concentration of total phosphorus at the mouths of the tributaries listed

below and the specified points along the mainstream of the Tualatin River, as measured during the low flow period between May 1 and October 31*, of each year, unless otherwise specified by the Department, to exceed the following criteria:

Mainstream (RM)	u <u>e/1</u>	<u>Tributaries</u>	ug/1
Cherry Grove (67.8) Dilley (58.8) Golf Course Rd. (52.8) Rood Rd. (38.5) Farmington (33.3) Elsner (16.2)	20 40 45 50 70 70	Scoggins Cr. Gales Cr. Dairy Cr. McKay Cr. Rock Cr. Fanno Cr.	60 45 45 45 70 70
Stafford (5.4)	70	Chicken Cr.	70

(b) After completion of wastewater control facilities and implementation of management plans approved by the Commission under this rule and no later than June 30, 1993, no activities shall be allowed and no wastewater shall be discharged to the Tualatin River or its tributaries without the specific authorization of the Commission that cause

"he monthly median concentration of ammoniatrogen at the mouths of the tributaries listed pelow and the specified points along the mainstream of the Tualatin River, as measured between May 1 and November 15*, of each year, unless otherwise specified by the Department, to exceed the following target concentrations:

<u>Mainstream (RM)</u>	<u>ug/1</u>	<u>Tributaries</u>	<u>ug/1</u>
Cherry Grove (67.8) Dilley (58.8) Golf Course Rd. (52.8) Rood Rd. (38.5) Farmington (33.3) Elsner (16.2) Stafford (5.4)	30- 40-	Scoggins Cr. Gales Cr. Dairy Cr. McKay Cr. Rock Cr. Fanno Cr. Chicken Cr.	$30 \\ 40 \\ 40 \\ 100 \\ 1$

(c) The sum of tributary load allocations and waste load allocations for total phosphorus and ammonia-nitrogen can be converted to pounds per day by multiplying the instream criteria by flow in the tributary in cfs and by the conversion factor 0.00539. The sum of load allocations waste load allocations for existing or future nonpoint sources and point source discharges to the mainstream Tualatin River not allocated in a tributary load allocation or waste load allocation may be calculated as the difference between the mass (criteria multiplied by flow) leaving a segment minus the mass entering the segment (criteria multiplied by flow) from all sources plus instream

(d) The waste load allocation (WLA) for total phosphorus and ammonia-nitrogen for Unified Sewerage Agency of Washington County is determined by subtracting the sum of the calculated load at Rood Road and Rock Creek from the calculated load at Farmington;

(e) Subject to the approval of the Environmental Quality Commission, the Director may modify existing waste discharge permits for the Unified Sewerage Agency of Washington County and allow temporary additional waste discharges to the Tualatin River provided the Director finds that facilities allowed by the modified permit are not inconsistent and will not impede compliance with the June 30, 1993 date for final compliance and the Unified Sewerage Agency is in compliance with the Commission approved program plan;

(f) Within 90 days of the adoption of these rules, the Unified Sewerage Agency of Washington County shall submit a program** plan and time schedule to the Department describing how and when the Agency will modify its sewerage facilities to comply with this rule. The program plan shall include provisions and time schedule for developing and implementing a management plan under an agreement with the Lake Oswego Corporation for addressing nuisance algal growth in Lake

(g) Within 18 months after the adoption of these rules, Washington, Clackamas, Multnomah Counties and all incorporated cities within the Tualatin River and Oswego Lake subbasins shall submit to the Department a program plan** for controlling the quality of urban storm runoff within their respective jurisdictions to comply with the requirements of subsections (a) and (b) of this section; (h) After July 1, 1989, Memorandums of Agreements between the Departments of Forestry and Agriculture and the Department of Environmental Quality shall include a time schedule for submitting a program plan** for achieving the requirements of subsections (a) and (b) of this section. The program plans shall be submitted to the Department within 18 months of the adoption of this rule;

(i) Within 120 days of submittal of the program plans** and within 60 days of the public hearing, the Environmental Quality Commission shall either approve or reject the plan. If the Commission rejects the plan, it shall specify a compliance schedule for resubmittal for approval and shall specify the reasons for the rejection. If the Commission determines that an agency has not made a good faith effort to provide an approvable plan within a reasonable time, the Commission may invoke appropriate enforcement action as allowed under law. The Commission shall reject the plan if it determines that the plan will not meet the requirements of this rule within a reasonable amount of time. Before approving a final program plan, the Commission shall reconsider and may revise the June 30, 1993 date stated in subsections (a), (b), and (e) of this section. Significant components of the program plans shall be inserted into permits or memorandums of agreement as appropriate;

(j) For the purpose of assisting local governments in achieving the requirements of this rule, the Department shall:

(A) Within 90 days of the adoption of these rules, distribute initial waste load allocations and load allocations among the point source and nonpoint source management agencies in the basin. These allocations shall be considered interim and may be redistributed based upon the conclusions of the approved program plans;

the approved program plans; (B) Within 120 days of the adoption of these rules, develop guidance to nonpoint source management agencies as to the specific content of the programs plans;

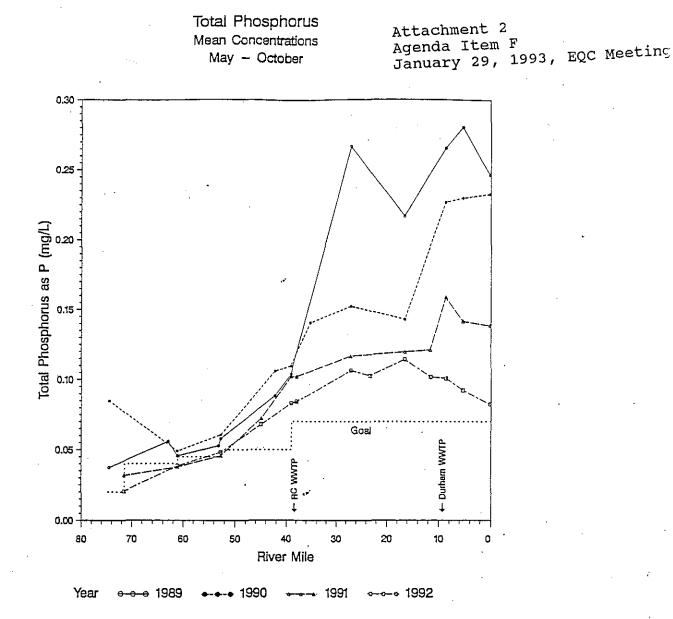
(C) Within 180 days of the adoption of these rules, propose additional rules for permits issued to local jurisdictions to address the control of storm water from new development within the Tualatin and Oswego Lake subbasins. The rules shall consider the following factors:

(i) Alternative control systems capable of complying with subsections (a) and (b) of this section;

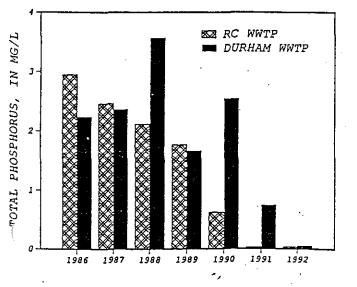
(ii) Maintenance and operation of the control systems;

(iii) Assurance of erosion control during as well as after construction.

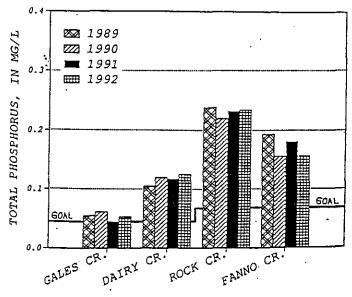
(D) In cooperation with the Department of Agriculture, within 180 days of the adoption of this rule develop a control strategy for addressing the runoff from container nurseries.



TOTAL PHOSPHORUS CONCENTRATION IN EFFLUENT FROM WASTE-WATER TREATMENTS PLANTS, MAY-OCT, 1986-92



PHOSPHORUS CONCENTRATION IN FOUR TUALATIN TRIBUTARIES, MAY-OCT, 1989-92



Environmental Quality Commission

Rule Adoption Item
 Action Item
 Information Item

Agenda Item <u>G</u> January 29, 1992 Meeting

Title:

Request by Mapleton Commercial Area Owners Association for Waiver or Reduction in Domestic Waste Discharge Annual Compliance Determination Fee

Summary:

OAR 340-45-070(2) allows the Commission to reduce or suspend an annual compliance determination fee based on hardship. Based on the following facts Department staff concluded a hardship condition exists in Mapleton:

- 1. The Mapleton area economy is a timber depressed economy.
- 2. There are a very limited number of system users: thirteen small businesses and five residences. The number of users are not expected to increase.
- 3. Because the number of users is unlikely to increase, the system has about twice the capacity needed to treat the influent sewage.
- 4. Debt service and operation costs to the 18 users are extremely high, resulting in extremely high monthly payments.
- 5. The average monthly payments for residences and small businesses in Oregon for capital and operation costs is \$14 to \$22 per month. This compares with about \$170 per month for small businesses in Mapleton and \$106 for residences.
- 6. The annual compliance determination fee amounts to about \$60 per user per year--about 60 times higher than the average cost per household statewide.
- 7. The treatment system is unique--a small recirculating gravel filter serving a very small number of users but with a surface water discharge. The system requires an NPDES permit and a certified system operator.

Department Recommendation:

The Department recommends that the Commission suspend the annual compliance determination fee for the Mapleton Commercial Area Owners Association for fiscal year 1992-93 and for subsequent fiscal years until such time as the system users have paid off their loans used to finance the local share of the capital costs. It is further recommended that the Commission direct staff to prepare a proposed amendment to the annual compliance determination fee schedule (OAR 340-45-075(4) such that Mapleton would pay the same annual compliance fee as systems now included in category F. A change in classification would reduce the Mapleton Commercial Area Owners Association annual compliance determination fee from \$1,035 to about \$465.

Alemas (Aulas) Report Author	Michael Hours- Division Administrator	 Dir	rector	Ab	
January 11, 1993	[†] A large print available upon ro		f this	report	is

Date: January 12, 1993

To: Environmental Quality Commission

From: Fred Hansen, Director

Subject: Agenda Item G, January 29, 1993 EQC Meeting

<u>Request by Mapleton Commercial Area Owners</u> <u>Association for Waiver or Reduction in Domestic Waste</u> <u>Discharge Annual Compliance Determination Fee</u>

Statement of the Issue

The Commission is being asked to reduce or waive the annual compliance determination fee for the Mapleton Commercial Area Owners Association (Mapleton) due to hardship. OAR 340-45-070(2) authorizes the Commission to take this action. Mapleton initially requested Commission consideration on September 17, 1992; documentation supporting the request was received November 30, 1992.

Background

The Mapleton sewerage system was constructed in 1989 in response to a 70 percent on-site system failure rate in the commercial area of the community. The treatment facility is a recirculating gravel filter with a capacity of 24,000 gallons per day. Highly treated effluent is discharged to the Siuslaw River.

There are 18 users of the Mapleton system (13 commercial users and 5 residences). The 18 users utilize about one-half of the treatment capacity. The commercial establishments are small rural businesses with water use and waste strength similar to single-family residences; an exception is a 42-unit mobile home park.

The area economy is timber based and severely depressed. Two of three area mills have shut down and the third mill has recently curtailed operations. Future growth and increased utilization of the sewerage system are not expected.

[†]A large print copy of this report is available upon request.

The household income in the Mapleton area was about \$13,000 in 1980. Although disaggregated results of the 1990 census are not yet available, the 1990 household income for the Mapleton area is probably about \$16,000, or similar to the statewide average for rural household income.

Construction of the Mapleton system was financed with an Oregon Community Development grant for \$319,000. An additional \$128,000 was financed locally. Financial and related assistance from Lane County and the Siuslaw Valley Bank reduced the local cost to system users to about \$85,000.

The 18 system users are financing the local share through loans from the Siuslaw Valley Bank. Payments to the bank by each commercial user are about \$107 per month; payments by each residential user are about \$86 per month. The 18 system users are financing operation and maintenance costs through user charges. Current charges are \$64 per month for each commercial user, and \$20 per month for each residential user. The total charges are about \$171 per month for each commercial user, and \$106 per month for each residential user.

The monthly user payments for debt retirement and for operation and maintenance of the Mapleton system are much higher than in other areas of the state. This is not because the capital and operation costs are too high, but because there are a very limited number of users over which to spread the costs. Statewide, user charges for both debt retirement and system operation combined generally range from \$14 to \$22 dollars a month for residential users and small commercial establishments. Federal agencies such as the Farmers Home Administration and the Environmental Protection Agency are reluctant to extend grant funds for sewerage projects if they conclude that a community lacks the financial capability to pay for the system. Generally, these agencies do not like to extend grant funds if local share costs result in user charges greater than about \$24 a month.

The annual compliance determination fee for Mapleton is \$1,035. This amounts to about \$5 per month per user or \$60 per year. Last spring, Water Quality Division staff analyzed the impact of domestic waste treatment permit fees on domestic rate bases and concluded that the impact statewide amounted to about \$1 per user per year. The \$5 per month cost per user will increase operation and maintenance costs above current charges.

<u>Authority to Address the Issue</u>

The Commission establishes compliance determination fees for domestic waste sources to cover the water quality program's cost to conduct compliance activities. There has been substantial compliance activity and oversight of the Mapleton sewerage system since its construction, and consequently, there has been an associated cost for performing these activities. However, the rules allow the Commission to waive all or part of the fee for hardship. OAR 340-45-070 specifically states "The Commission may reduce or suspend the annual compliance determination fee in the event of a proven hardship." The Commission considered a similar request in July 1991 by the City of Butte Falls. The request was denied. There have been no other requests for waiver or reduction of the annual compliance determination fee.

Alternatives and Evaluation

- 1. Suspend the Annual Compliance Determination Fee. The Commission can suspend the fee based on proven hardship. Although criteria which would demonstrate proven hardship have not been established, it is clear that the monthly debt service and system operation charges incurred by users of the Mapleton sewerage system are extremely high. This is because the capital and operation costs are spread over a very limited number of users. There are no known comparable charges anywhere in the State. In addition, the charges necessary to cover only the cost of the compliance determination fee are \$5 per user per month. This is 60 times higher than the average household cost The Mapleton users are further disadvantaged statewide. by paying for a system with substantial treatment capacity which will probably never be utilized.
- Reduce the Annual Compliance Determination Fee. 2. Another viable option would be to reduce the fee to be comparable with fees for similar treatment systems. Treatment systems with recirculating gravel filters normally rely on subsurface disposal. The annual compliance determination fee for such systems with greater than 20,000 gallons per day capacity is about \$465. The Mapleton system is similar to these systems except that the method of disposal is discharge to the Siuslaw River, rather than subsurface discharge. The Mapleton Association has made a partial payment of \$258. The additional cost to Mapleton for this year would be about \$207.

> Other reduction options could also be considered. One possibility would be reduce the fee to \$150 annually. This amount is the minimum annual compliance determination fee now charged for domestic waste sources.

- 3. Suspend and Reduce the Annual Compliance Determination Fee. The Commission could consider suspending the fee for fiscal year 1992, and establishing a reduced fee in subsequent years. A fee suspension for this year would recognize the severe financial position now faced by Mapleton; a reduced fee in the future would continue the financial assistance but would also recover a portion of the Department's cost for compliance activities.
- 4. Do Not Suspend or Reduce the Fee. The Commission could choose this alternative if it is not convinced that a proven hardship exists.

Alternatives 1 (suspend the fee) and 2 (reduce the fee) will not have any significant fiscal impact (beyond the immediate fee reduction) on domestic waste treatment permit fee revenues. Based on information submitted by Mapleton and information contained in the Water Quality Division permit files, Mapleton appears to be a unique situation. The high monthly payments are due to a very small number of users financing and operating a new system. There is substantial excess capacity which adds to capital and operation costs. Mapleton is also unique in that the treatment system is a small recirculating gravel filter with a surface water discharge rather than a subsurface discharge.

Findings and Conclusions

- * The Mapleton sewerage system serves only 18 users (13 commercial establishments and 5 residences).
- * The total cost of the new sewerage system was \$450,000 with \$85,000 financed by the 18 system users.
- * The Mapleton area is a timber depressed economy.
- * It is unlikely that there will be additional users of the Mapleton system.
- * Debt service and operation and maintenance costs to the 18 users are extremely high, resulting in extremely high monthly charges.

- The annual compliance determination fee amounts to about \$60 per user per year--about 60 times higher than the average cost statewide.
- * The rules pertaining to proven hardship do not include any criteria for demonstrating hardship.
- * Based on information regarding the depressed economy, small number of users, high debt and operation costs, high monthly charges, and comparable user charges for other sewerage systems in the State, it appears that a proven hardship exists for users of the Mapleton sewerage system.
- Based on available information Mapleton is in a unique situation--a very small number of users financing and operating a new system, and a system with a surface water discharge.
- * Based upon the specific circumstances, the Mapleton Association has proven a hardship, consistent with OAR 340-45-070(2), which warrants some reduction in the annual compliance determination fee.

Recommendation for Commission Action

It is recommended that the Commission suspend the annual compliance determination fee for the Mapleton Commercial Area Owners Association for fiscal year 1992-93 and for subsequent fiscal years until such time as the system users have paid off their loans used to finance the local share of the capital costs. It is further recommended that the Commission direct staff to prepare a proposed amendment to the annual compliance determination fee schedule (OAR 340-45-075(4)) such that Mapleton would pay the same annual compliance fee as systems now included in category F (systems larger than 20,000 gallons per day which dispose of treated effluent via subsurface means A change in classification would reduce the Mapleton only). Commercial Area Owners Association annual compliance determination fee from \$1,035 to about \$465. The proposed amendments would be prepared after the above noted loans are paid off. At that time the Commission would have the opportunity to further review the Mapleton financial situation and could choose to reduce the annual fee to an amount lower than \$465, or suspend it entirely.

Attachments

- A. Background information prepared by Water Quality Division staff.
- B. Letter dated September 17, 1992, requesting reduction or waiver of annual compliance determination fee.
- C. Supporting documentation dated November 24 1992, "Request for Waiver of Annual Compliance Determination Fee."

Approved:

Section:	Municipal Waste Barbara a. Buton
Division:	Water Quality Michael Downs

Report Prepared By: Thomas J. Lucas

Phone: 229-5065

Date Prepared: December 24, 1992

TJL:hs:cw MW\WC10\WC11059.5 January 8, 1993

BACKGROUND INFORMATION

A. Sewerage System

Based on documented on-site system failures in the Mapleton business area (about 70 percent failure rate) a facility plan was prepared in 1986, and a sewage collection, treatment, and disposal system was constructed in 1989.

The treatment system is a recirculating gravel filter with National Pollutant Discharge Elimination System permit limits of 10 milligrams per liter of biological oxygen demand and total suspended solids with disinfection and discharge to the Siuslaw River at river mile 20.2. The rated capacity is 24,000 gallons per day. The Mapleton sewerage system is unusual in that most recirculating gravel filter systems utilize subsurface disposal rather than a surface water discharge.

B. Service Area

The service area is restricted to the Mapleton business area. There are 13 commercial users and 5 residential users of the system. The 13 commercial establishments are small businesses, and one 42-unit mobile home park.

The facility plan estimated 32 users upon completion of construction, and projected an eventual 64 users. Other estimates ranged from 30 users at completion of construction to an eventual 43 users. The Lane County Boundary Commission ultimately determined the service area of the Mapleton Commercial Area Owner's Association. Several residences and businesses who were initially projected to join declined and consequently the Boundary Commission did not include them within the system boundary.

Economy and Future Growth:

The economic situation in the Mapleton area is severely depressed due to reduction in timber based employment. Two of the three area lumber mills have shut down and a third has substantially curtailed operations. There is no other known potential for economic growth.

It is doubtful that there will be additional users added to the Mapleton system. If this is the case, the existing users will be paying for the entire 24,000 gallons per day capacity. About 12,000 gallons will be unused capacity.

MW\WC10\WC11060.5 January 29, 1992

C. Project Costs

The initial facility plan estimates for the entire system were about \$286,000. By the time the system was built total project costs had increased to about \$437,000. Reasons for the substantial increase are not fully known but appear to be due to rapidly rising construction costs in the late 1980s and bid delays.

D. Capital Financing

Due to the rapid increase in costs, a larger than expected debt burden was placed on the system users. The financing was accomplished as follows:

Grant — Oregon Community Development	\$319,000
Assistance — Siuslaw Valley Bank	\$ 13,000
Assistance — Lane County	\$ 20,000
Hookup costs to 13 businesses	\$ 65,000
Hookup costs to 5 residences	\$ 20,000

The business and residential property owners received loans to pay the capital costs from the Siuslaw Valley Bank at about 9 percent interest for five years. The capital cost to each business was \$5,000, and \$4,000 to each residence. The loan payment per month is as follows:

Monthly Payments — Commercial	\$107 per month.
- Residences	\$ 86 per month.

E. Operation and Maintenance Financing

The facility plan estimated user costs at \$18.65 per month initially with costs declining to \$13.12 per month after about ten years. The reason for the projected cost decline was the projected addition of new customers. After the service area was determined by the Lane County Boundary Commission, Mapleton set the costs at \$40 per month for each commercial user and \$20 per month for each residential user. The rate difference does not appear to be based on flows but rather on ability to pay.

Operation and maintenance costs have increased substantially since the system was constructed. In addition to waste treatment permit fee increases, the costs for system operations, water and power purchases, liability insurance, operating supplies, and office expenses have all increased. The most dramatic increases have been in insurance (from \$88 to \$1,061 annually) and system operation (\$480 to \$5,760 annually). In addition to increased operation costs,

MW\WC10\WC11060.5 January 29, 1992 A - 2

Mapleton's contingency fund has been depleted due to a DEQ requirement to replace 90 cubic yards of filter media at a cost of \$2,646. The current operation and maintenance costs are as follows:

Monthly	Payments	- Commercial	\$ 64	per montl	h.
-	-	- Residences	\$ 20	per montl	h.

F. Total User Costs

Total monthly costs for system users are as follows:

Commercial	\$171	per	month
Residences	\$106	per	month

G. Costs in Other Communities

Sewer user charges in most other communities are increasing rapidly as costs for capital, labor, and supplies increase. Statewide, the residential user charges vary substantially but are generally in the range of \$14--\$22 per month. This charge, in most situations, applies both to capital costs for replacement or upgrade of system facilities and for operation and maintenance. Commercial user charges vary but are generally based on flows and are often calculated in residential equivalents. Small businesses usually pay about the same or slightly more than residences.

H. Financial Capability

Federal agencies such as EPA and the Farmers Home Administration provide grants for sewerage facilities. Generally, these agencies will not extend a grant if the remaining local share is beyond the communities' ability to pay. As noted above, Mapleton commercial users are paying \$171 per month for debt retirement and operation and maintenance; residences are paying \$106 per month. Farmers Home Administration is very reluctant to extend a grant if the debt service per year is greater than 1 percent of median household income. The Mapleton area household income is estimated to be about \$16,000 per year. The debt service for Mapleton would amount to about \$13 per month. Generally, Farmers Home does not want total sewer user charges to exceed \$24 per month per user. EPA requires a more complex analysis but is also reluctant to award a grant if the user charges are over \$24 per month per user.

I. Impact of Domestic Waste Treatment Permit Fees

The current annual compliance determination fee for Mapleton is \$1,035. Mapleton's classification is Da (less than 1 MGD capacity with a surface water discharge). The \$1,035 fee amounts to about \$5 per month per user or \$60 per year. Last spring the Water Quality Division analyzed the impact of domestic waste treatment permit fees on municipal rate bases and concluded that the impact statewide amounted to about \$1 per user per year. The fee impact for small systems with the same classification as Mapleton is much less than that experienced by Mapleton. The fee impact for sewerage system users in the City of Lowell, for example, is about \$4 per user per year.

In July 1992, annual compliance determination fee invoices were mailed out to the 480 domestic waste sources. While there was substantial concern expressed by many communities (100-120 phone calls and letters), most communities have paid their fees. Of total billings of about \$1,400,000, less than \$6,500 remains unpaid. Mapleton has paid \$258 in fees, leaving a balance of \$777. There are about 20 other small communities who have not yet paid their fees or who have made partial payment. Two of these communities are strongly objecting to the fee amounts, and may appeal to the Commission for a fee waiver or reduction.

Information Sources

Peter Thurston, Lane County Economic Development Coordinator.

James Estes, President, Mapleton Commercial Area Owners Association.

Teri Laurence, Member, Mapleton Commercial Area Owners Association, "Request for Waiver of Annual Compliance Determination Fee," November 1992.

Bud Fisher, Loan Officer, Farmers Home Administration.

Norman Sievertson, Construction Grants Project Officer, U.S. Environmental Protection Agency.

Dick Knowles, Project Manager, Economic Development Department.

Christa Pruett, Siuslaw Valley Bank.

Tom Poage Engineering and Surveying, "Wastewater Study for the Commercial District of Mapleton," Oregon, 1986.

MW\WC10\WC11060.5 January 29, 1992

MAPLETON COMMERCIAL AREA OWNERS ASSOCIATION

P.O. Box 96, Mapleton OR 97453

Sept. 17, 1992

Department of Environmental Quality Water Quality Division 811 SW Sixth Avenue Portland OR 97204

Attention: Barbara A. Burton

Dear Barbara Burton:

This will acknowledge receipt of DEQ's invoice VQ93DOM-0429, dated July 28, 1992, for the fiscal year 1992-93, a copy of which is enclosed.

We note that our fee for DEQ's compliance oversight has risen from \$755 last year to \$1,035 this year - an increase of nearly 30 percent. Divided by the number of hookups - 20 - on our system, this fee represents a cost of approximately \$1 a week per hookup. Our patrons already are paying \$64 a month for service, and our contingency fund was recently depleted by \$2,646 due to DEQ's requirement that we add filter rock to the treatment plant.

From previous correspondence we understand that Hebo, for instance, pays the same fee as we. Hebo has nearly four times as many hookups. Contrast our situation with theirs, and you will probably agree that this fee constitutes a hardship.

We further feel that requiring a higher fee from systems that discharge into public waters because of the possibility - no matter how slight - of contaminating those waters is inequitable.

Under provisions of ORS 340.45-070 (2), we request that this fee be reduced or waived, due to hardship to this association.

At this time we are forwarding our check for \$258.75 - one-fourth of this greatly increased fee - in hopes that further payments will be much smaller.

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Cordially,

P. Entr Aures

James P. Estes, President, for the Board of Directors

cc: Sen. Peg Jolin Rep. Larry Campbell Lane County Commissioner Ellie Dumdi Peter Thurston, Lane County staff

MAPLETON COMMERCIAL AREA OWNERS' ASSOCIATION

"REQUEST FOR WAIVER OF ANNUAL COMPLIANCE DETERMINATION FEE"

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EXHIBIT "D" - NEWS ARTICLES

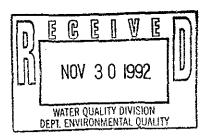
EXHIBIT "E" - LCLGB AGENDA/STAFF NOTES 3/3/88

EXHIBIT "F" - NEWS ARTICLES/TIMBER ECONOMIC DECLINE

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EXHIBIT "H" - MAPLETON STRATEGIC PLAN

EXHIBIT "I" - LANE COUNTY/MAPLETON (SWOT) ANALYSIS



DEQ/11/24/92

EXHIBIT "A"

STATEMENT OF FACTS/SUMMARY

Basis of Harddhip and Exceptional Burden Upon Individual Property Owners.

- (1) While economic decline and rising costs certainly contribute to the current hardship. One area stands out and must carry the heaviest weight in the commissions' consideration that a hardship exists. The overwhelming and undeniable factor evidencing the hardship is that, less than half the projected members/users came on line. Participation fell far below the projected figures consistently referred to throughout the studies, and which were relied upon and the basis to which the property owners used to determine and establish the feasibility of going ahead with the project.
- (2) To further demonstrate the hardship, each member was required to pay extra capital to build a contingency fund to cover the short fall of members. To compound the hardship, the substantial increase in hook-up fees was not enough, and no portion of our contingency fund was left in tact upon completion of the facility. The hardship was created at the beginning and the MCAOA has never been able to correct it. Had even a small portion of the contingency fund been retained, we would have been O.K., as it is the current situation pretty much dictates the association, will not be able to maintain the viability of the facility if some abatement of expenses is not forthcomming relatively soon.
- (3) The MCAOA members have demonstrated discipline and their dedication to the facility by their self-imposed rate increase. The increase was substantial, from \$40.00 to \$64.00 per month for commercial users. The commercial users elected to take the full increase, sparing the residential users from an increase. However, increased operating fees and costs are already creating the need to again increase rates, and it looks like residential users will not be spared this time.
- (4) The businesses are carrying the heaviest burden. Because of multiple hook-ups several members pay \$148.00 per month for sever service. Add this to the new water rates (some business fees set at \$36.73 and \$76.73) per month, actual water usage is then added to this base charge. You must agree that the cost of water and sever service each month has become substantial and excessive.

SUMMARY

- (5) That, with the winter months upon us and the local timber mill announcing the plant lay-offs, it is very unlikely that businesses or residents will continue to keep-up and make timely payments at the current rates, let alone meet any new rate, set by the impending increase.
- (6) All indications are that, the membership cannot withstand another rate increase at this time. If one is unavoidable or forced upon them, then it will have significant repercussions and major impact upon the association as

EXHIBIT "A" ----- STATEMENT OF FACTS/SUMMARY (Con't)

a whole, which will be beyond the members ability to resolve.

- (7) The operating funds of the association are pretty much depleted each month to meet its debt obligations. The savings account was wiped out by the recent gravel repair (\$2,646.00) requirement. Therefore, it has been clearly demonstrated that the association can not tolerate or withstand even one non-payment of a user fee. The association just simply is not in a position to operate if all the user fees are not collected each and every month.
- (8) Attached to this Exhibit "A" is a letter to you, dated 8/5/91. It is simply to demonstrate that the MCAOA has attempted to communicate this situation and its relief for quite some time. They have referenced the HEBO and DEXTER facilities, which distribute the compliance fee between in excess of 100 users. The fact that the MACOA is required to pay the same fee amount, distributed between a mere <u>14 individuals</u> is just not equitable. The fact is that the MACOA should have, from its inception, been charged under a lesser classification, perhaps under DEQ's guidelines for "Lagoons", based on its low flow rate.

In view of the herein contained facts, it becomes vastly important that the MCAOA actively pursue, and obtain a decision from the commission one way, or the other, of their requests to waiver the compliance fee. Any consideration or decision by the commission at the January 28-29, 1993 meeting, that leans favorably toward the MCAOA in an abatement, reduction, or temporary waiver, of the compliance fee will be greatly appreciated and will certainly help to rebuild the emergency/contingency fund now depleted. Lastly it bears special note, that the above stated \$2,646.00 repair money took the association several years to build. Needless to say it was devastating and most discouraging to see it wiped out so swiftly, to come to the realization we are just beating our heads against a brick wall, with no relief in sight.

HARDSHIP REVIEW

- (a) No Start-up Funds/Operating Revenue
- (b) Limited Hook-ups/User Participation
- (c) Excessive Operating Increases
- (d) Excessive User Rate Increases
- (e) Local Economic Decline
- (f) Present Lack of Diversity



MAPLETON COMMERCIAL AREA OWNERS' ASSOCIATION, INC. P. O. Box 96 Mapleton, Oregon 97453

August 5, 1991

Ms. Barbara A. Burton Water Quality Division Department of Environmental Quality 811 S. W. Sixth Avenue Portland, OR 97204

SUBJECT: DEQ Annual Compliance Determination Fee

Dear Ms. Burton:

As per our phone conversation of 7-22-91, I will attempt to explain the precarious situation of the Mapleton Commercial Area Owners' Association (MCAOA):

- 1992 Ivereased to \$1,035.00
- A. Our current budgét of annual expenses is \$11,184. Of this amount, \$755.00 is for the subject fee. In other words, this fee is 6.8% of our current operating costs. This seems extreme!
- B. It should be noted that we currently have only 18 hookedup establishments (users). This includes 5 residences @ \$20.00/Mo. and 13 businesses @ \$64.00/Mo. The \$64.00 business rate includes a very recent 60% increase. As you can see, these rates are unreasonably high. It should be further noted that these rate payers in this economically depressed area are having real financial problems.
- C. Please understand that we are currently processing only about 12,000 gallons/day of effluent, and the resulting treated discharge to the Siuslaw River is very pure.

With the above in mind, and pursuant to OAR 340-45-070, the Board of Directors of MCAOA hereby requests suspension of the Subject fee for 1991. We also hereby request reduction of the 1990 Fee and/or adjustment in due date.

Thank you very much for your help and attention.

Sincerely,

W. J. Zach Secretary, MCAOA

cc: Larry L. Campbell, Speaker of the House Commissioner Ellie Dumdi Mr. Al Peake

EXHIBIT "B"

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SUPPORT LETTERS

(1)	Letter,	Plant Opera	tor Wage Increase	- <u>Details</u>	Highlighted
(2)	Letter,	2/26/91 RE:	Rate Increases	- <u>Details</u>	Highlighted
(3)	letter,	5/27/91 RE:	Monthly Shortfall	- <u>Details</u>	Highlighted
(4)	Letter,	8/18/92 RE:	Plant Repairs	-Details	Highlighted
(5)	Letter,	7/18/92 RE:	Debt Schedule	-Details	Highlighted

From Charles E.Davis,Operator Mapleton Water District Box 435 Mapleton Oregon 97453

- Mapleton, Oregon 97453 Fo Mapleton Commercial Are Owners Association 01953 Highway 126 Mapleton, Oregon 97453
- bject Letter of facts as known to the above referenced operator concerning the current contract in effect between the Association and Mapleton Water District.
 - My employment with the Water District requires that I operate said District in compliance with the governing Ordinance and the appropriate State and Federal laws. The hours being flexible, whether one, two or twenty four hours per day whatever is necessary to maintain proper operation. It is this flexibility that makes the job desirable.
 - 2. It follows that any work performed for the Association must come out of off-duty or"free"time.
 - When first approached I was informed that the job would require approximately twenty hours per month.
 - 3.I proposed a wage scale of \$10.00 per hr.,quite reasonable by industry standards, for only the actual hrs.worked.To illustrate, the septic tank screen cleaning at Me-N-U market, I understand will cost approx. \$60.00, could have been done for about \$10.00 each for the Market and Frank's.
 - 4. Just previous to the signing of the current contract I was told by then secretary, Marilla Kessel, that the Association was woefully short of funds and that the \$200.00 per month payment must include the associated increases in payrol1 tax incurred by the Dist.It should further be noted that the \$200.00 figure was arrived at by 20 hrs X \$10.00 per hr. and that the thirty hr.limitation did not guarantee thirty hr.s work per mo. There is a schedule attached prepared from the current wage scales at the City of Florence to illustrate that this scale is about one half that of comparable work in this area.
 - 5. I reluctantly agreed with the understanding, I thought, that this would be upgraded at a later date. This has NOT been done.
 - 6. No upgrade of time required has been done as required by article two.
 - 7. The actual facts are that DEQ regires DAILY effluent monitoring this means Saturday, Sunday, Christmas or any other holiday. There is also a monthly composite sample of both influent(dirty water) and effluent(clean water) taken every six hrs.for a period of twenty four hours.
 - 8. I am unaware of any move by the Association to review this agreement, during the month of March, as required by the second sentence of Article four. Therefore any wage settlement must be retroactive to to March 31,1990.
 - 9. It is hereby requested that the attached the attached points of negotiation be addressed at once and without further further delay noting that the Association was verbally informed of my displeasure with the current agreement earlier this summer. And to date no proposal from the Association has been received.

Sincerely/ CE Que

Wite: 10/89 - 3/90 - Wage increased from \$200 mo. Xo the Present \$480.04 (only 6 mos into operations)

Charles E, Davis

MAPLETON COMMERCIAL AREA OWNERS' ASSOCIATION % Siuslaw Valley Bank P. O. Box 96 Mapleton, Oregon 97453

February 26, 1991

Subject: (1) User fee (rate) increase (2) Preventative maintenance, Owner's septic tank

Mr. & Mrs. Rolland P. Laurence P. O. Box 38 Mapleton, OR 97453

Dear MCAOA member:

(1) Since December 1990 we have had an increase of about 240% for direct labor costs to operate the sewer plant. Yes, this means that labor costs have way more than doubled. Your Board of Directors has made every effort to keep these costs as low as possible. However, it is obvious that a substantial increase in monthly operating fees will soon be required. The Bylaws of MCAOA state that operating fees will be set at the annual meeting. It is possible that we will not be able to hold out until August, in which case a special membership meeting would have to be called. Your Board of Directors is now in the process of evaluating the figures to determine our exact financial position. We wish to hereby inform you of the likely rate increase. As further facts and figures are known, we will notify you.

(2) Recently, several of the commercial "heavy-use" septic tanks have experienced inlet and screen plugging problems. This is an individual tank problem, and thus, the tank owner'responsibility. It has become obvious that these problems are chiefly due to lack of preventative maintenance. Also, we are still learning how to operate these tanks.

At this time we are recommending that the tank screen/outlet assembly be periodically pulled, inspected and cleaned. We believe the following schedule is adequate: heavy users-every two months, moderately heavy users-every three months, single residential userevery six months.

Note that this maintenance can be done fairly easily and quickly by the tank owner. However, we have had several requests to have the plant operator perform this. The MCAOA Board of Directors would consider setting up a program to have the necessary inpection and cleaning performed.

The estimated cost of such a procedure is \$15.00 per each inspection/cleaning. The additional amount of the monthly bill is estimated as follows:

Charged in Dolition to Manthly user Cates. Inspect/clean every 2 Mo.....Add \$7.50 to Mo. bill Inspect/clean every 3 Mo.....Add \$5.00 to Mo. bill Inspect/clean every 6 Mo.....Add \$2.50 to Mo. bill MAPLETON COMMERCIAL AREA OWNERS' ASSOCIATION % Mapleton Branch, Siuslaw Valley Bank P. O. Box 96, Mapleton, OR 97453

Mr. & Mrs. Rolland P. Laurence P. O. Box 38 Mapleton, OR 97453

May 27, 1991

Subject: Special Membership Meeting

Dear MCAOA Member:

In our letter to you of February 26, 1991, your Board of Directors informed you that a substantial increase in operating fees (rates) may soon be necessary. We have determined that this is indeed the case; at this time, our budgeted shortfall in revenue is \$382.00 per month. Accordingly, the Board of Directors has adopted the following proposed rate schedule:

Residence.....\$20.00/Mo.

Commercial.....\$64.00/Mo.

The proposed date of implementation of the new, increased rate is July 1, 1991.

Our Association Bylaws require that operating fees be set at the annual meeting of members. Therefore, a rate increase will require approval by the membership at a special meeting called for the purpose of amending the Bylaws (and setting new rates). Therefore, we are calling the required special meeting as follows:

Place: Mapleton Office, Siuslaw Valley Bank, Mapleton, Ore. Time: 7:00 PM, Tuesday, June 11, 1991

Please make every effort to attend and vote. If you cannot attend, please make sure that your proxy vote is in order. Thank you for your attention and co-operation.

Sincerely,

W. J. Zach Secretary, MCAOA

Enclosure: Proxy form

(MSALET91.02)

MAPLETON COMMERCIAL AREA OWNERS ASSOCIATION

F.O. Box 96, Mapleton OR 97453

August 18, 1992

11/2/92

Report to the members:

Q......

Operation and maintenance

Your sewer system has been operating smoothly and efficiently this past year. The co-operation we have received from the Mapleton Water District and its operator, Charlie Davis, who is also our system operator, has been outstanding. Our reports to the state Department of Environmental Quality, which oversees our operation, are consistently good. The effluent leaving the plant and going into the Siuslaw River are reported to be cleaner than the river water itself.

The co-operation we have received from the City of Florence and its Public Works Department, which processes - at no charge to the association all our tests required by the state, has also been excellent.

A system flaw developed this spring, which has now been corrected. Settling of the river rock in the processing tanks caused exposure of the pipes that spray gray water into the tanks. As these pipes are polyvinyl chloride (PVC), sunlight would have degraded them fairly soon. In addition, graywater was being spouted into the air, which was unsightly as well as odoriferous.

Correcting the settling problem required approximately 90 yards of washed river rock, which we contracted to have placed. The cost was \$2646, and the contractor was Teddy Bear of Florence. Your board feels that, although this cannot be considered a design flaw, it was a phenomenon that should have been anticipated by the designing engineer or the contractor or both - not to mention the state and county experts who passed on the plans. We also feel, however, that the possibility of recouping this outlay from either the engineer or the contractor is nil. In short, we are stuck with it.

Finances

As you will remember, your board found it necessary last year to raise operating fees in order to keep the association solvent. The increase was necesssitated by our new contract with the water district for the services of the system operator, which more than doubled our monthly operating cost. With the increase in fees, we were still able to set aside a modest sum each month for contingencies. Covering the exposed sprayer pipes nearly wiped out that fund, but we are hopeful that no further increase in fees will be necessary any time soon.

The fee we pay to the Department of Environmental Quality has been \$755 a year - the same fee paid by Dexter, which has around 100 hookups vs. our 20. We have protested vigorously to DEQ and to our member of the Oregon house, Rep. Larry Campbell, but to no avail.

note: Tranthis 8/18/92 Report, Jee was already increased (See next Pg.)

Report to the members, 7/18/92 - Page 2

Thank you for using Return Receipt Service

Now we are faced with another increase: DRQ's fee for the fiscal year from July 1, 1992, to June 30, 1993, is \$1,035. This means that each hookup is paying about \$50 a year to the state for its monitoring of the system. We probably should protest this increase, perhaps even more vigorously than before.

Oregon Administrative Rules 340-45-070 (2) states in part: "The Director [of DEQ] may alter the due date for the annual compliance determination fee upon receipt of a justifiable request from a permittee. The Commission [Environmental Quality Commission] may reduce or suspend the annual compliance determination fee in the event of a proven hardship." (Emphasic added) We attempted last year to get the fee, then \$755, reduced or waived, but to no avail.

We are currently taking in \$844 a month - \$10,128 a year - in sewer fees. Our outlays are (yearly total, monthly average, for year from July 1, 1991, to June 30, 1992)

755.00 \$1,035.00 62,92 Department of Environmental Quality: 5,760,48 Mapleton Vater District, for system operations: 480,04 311.15 Ser new Water Rates 25.93 Mapleton Water District, for water: Echibil "G" 883.90 Central Lincoln PUD, for power: 73.66 1,061.29 \$1,253.00 88.44 Liability insurance (required by the state): Chemicals and other operating supplies: 11.67 140.04 Postage and other office expenses: 10.93 131.16 753.59 9,044.00 *

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EXHIBIT "C"

WASTEWATER STUDY/TOM POAGE ENGINEER (1985)

Excerpts from this study total eight (8) pages as follows:

- (1) "Conclusions and Recommendations", more specifically item (6) on the page. Engineer's cost estimate highlighted.
- (2) "Current Situation", and more specifically labeled Table 1 Existing Establishments, as highlighted. (User Participation)
- (3) "Service Boundary Area Map", service area highlighted.
- (4) "Future Situation", Labeled Estimated Flows.
- (5) "Summary of Costs", Alternative highlighted, "Selection and Rationale", pertinent details highlighted.
- (6) "User Fees for Selected Alternative", details highlighted.
- (7) "User Costs", details highlighted.
- (8) "Newspaper Article of Project", Dated October 17, 1985, details highlighted.

The above supports and demonstrates the basis to which property owners concluded they could afford the system. Even with anticipating construction increases to the original estimates, the original construction costs were low enough, and the participation was high enough, that any reasonable increase, could be easily distributed and still affordable.

This was not even close, construction costs soared way beyond the estimates and user participation to distribute the costs fell on (14) individuals--Not Equitable At All!

WASTEWATER STUDY

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FOR THE

COMMERCIAL DISTRICT

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MAPLETON, OREGON

PREPARED BY

TOM POAGE ENGINEERING AND SURVEYING, INC. 1065 HIGH STREET, SUITE 3 EUGENE, OREGON 97401 PHONE: 485-4505

CHAPTER 1

CONCLUSIONS AND RECOMMENDATIONS

- 1. Currently, the Mapleton Commercial District relies on individual waste disposal systems that are in immediate need of repair or replacement. Sanitary surveys were conducted and show that nearly 70% of all systems in the District are failing or marginal condition. No septic and drainfield system has had a major successful overhaul in the past 10 years.
- 2. Based on the alternatives of no action, replacement of individual systems, a community system with on-site treatment and disposal, and a community system with the conventional treatment and discharge, the community system with on-site treatment and disposal was the most desirable method on the basis of cost, feasibility, and desirability.
- 3. A system of on-site disposal, comprised of a pressure collection system with users having individual septic tanks and effluent pumps, collected to a central pump station and then delivered to a suitable preselected site into a recirculating pea gravel filter and into seepage trenches was the most cost effective.
- 4. The selected alternative is the most simplistic. The operation and maintenance of the alternative can be directed by a local association. A intergovernmental agreement between Lane County, The Port of Siuslaw, and a local association would gaurantee the operation and maintenance of the wastewater system for years to come.
- 5. According to FEMA maps, there are areas in the Commercial District that exist both in and out of the floodway. The proposed alternative solves the health hazard that exists in and out of the floodway, but promotes growth only outside the floodway.
- 6. It is the recommendation of the engineer for Lane County to submit a grant application to fund a Commercial District sewage system in the next grant cycle. It is the Engineer's estimate that the selected alternative will cost \$ 286,131. The Commercial District shall also use volunteer labor, land donation values, and cash to meet the grant match requirements. Water Extended Transformer a Couple Hundred Thousand dollar off.
- 7. The selected alternative and the means of governing the sewage system has the backing of the local task force that was selected by the Board of County Commisioners, and after several public meetings held at Mapleton, the business and residential community of the Commercial District also support the decision to apply for funding of the selected alternative.

CHAPTER 3

CURRENT SITUATION

Currently, the Commercial District consists of both commercial and residential establishments. The following table summarizes the existing establishments:

TABLE 1 - EXISTING ESTABLISHMENTS

Establishment	Total	In-Use	Vacant
Commercial	18	14	4
Residential	12	10	2
Apartments	1	6 units	-

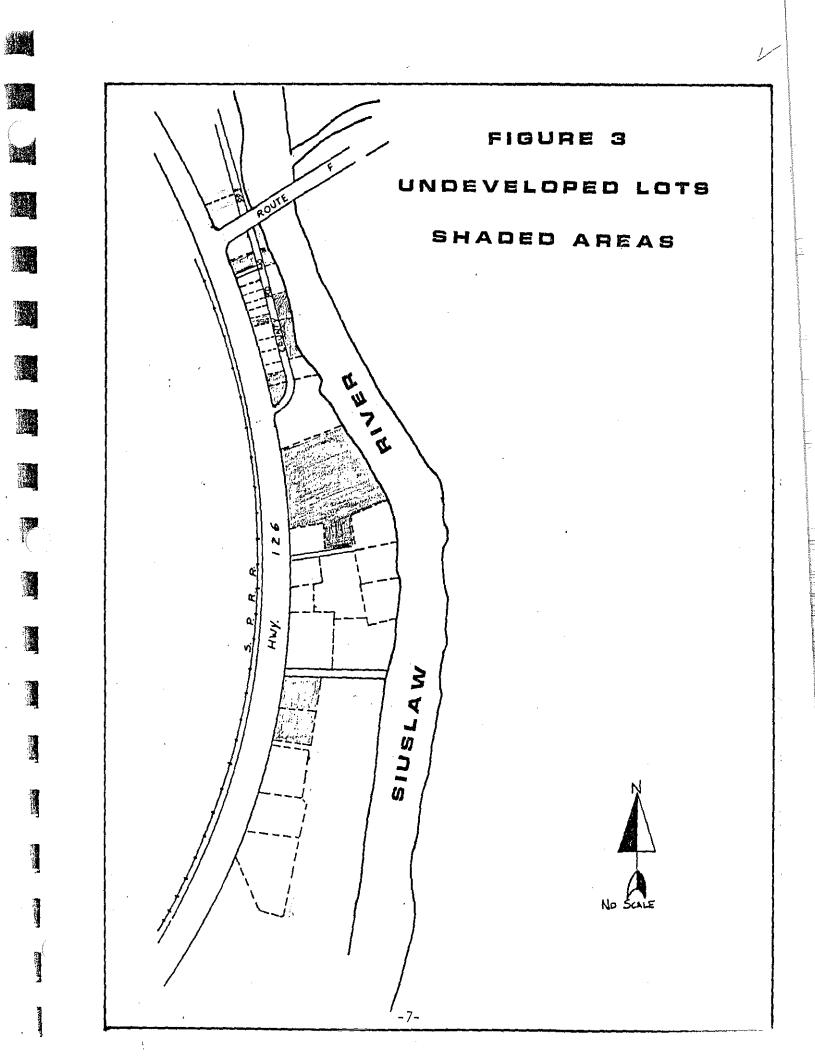
Does not include 42 trailer spaces in trailer park.

Thirty-three percent of the Commercial District is undeveloped and the designated zoning in the area is Community Commercial. The undeveloped lots in the district may either be residential or commercial depending on Lane County Planning Departments interpretation of land use on proposed lots within the Commercial District. Figure 3 depicts the amount of undeveloped lots in the Commercial District.

HISTORY OF WASTEWATER STUDIES

In 1968 and 1976, Lane County Environmental Health Officials conducted sanitary surveys of the wastewater disposal systems in Mapleton. The studies concluded that nearly all the systems in the Commercial District were either failing or marginal. Failure was defined as untreated effluent entering open waters or surfacing. The County's conclusion was to upgrade the individual systems or build a community wastewater treatment plant, as proposed in a 1976 facilities plan by URS Engineering Company of Seattle. The wastewater treatment plant was overwhelmingly defeated by the people of the community and according to Lane County, no improvement or construction permits have been issued to the Commercial District area since the 1976 survey.

In 1984, business persons from the Mapleton Community requested that Lane County submit an application for wastewater technical assistance to the State of Oregon Community Development Program. In 1985 the County recieved a grant fund from the State of Oregon to study the Mapleton wastewater problem in the Commercial District. A task force was appointed by the Board of County Commissioners to



Future Situation, Cont.....

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ESTIMATED FLOWS			
Establishments	Current	Future	
Commercial	7,160 gpd	11,560 gpd	
Residential	4,000 gpd	6,475 gpd	
Inflow/Infiltration	750 gpd	2,265 gpd	
TOTAL FLOW	11,910 gpd	22,650 gpd	

The strength of the sewage depends on the type of collection system and type of user. With subsurface treatment the chemical characteristics will effect the size of area needed. For conventional treatment, it will effect the method of treatment. The Commercial District's sewage is expected to be easily treated. There are no known sources of toxic materials or abnormal levels of heavy metals. The biological and nutrient levels are expected to be typical of domestic sewage. The estimated characteristics of the sewage are shown below.

-14-

BIOCHEMICAL OXYGEN DEMAND (BOD 5) = 0.20 lbs/capita/day SUSPENDED SOLIDS (SS) = 0.20 lbs/capita/day

NITROGEN = 0.03 lbs/capita/day

PHOSPHORUS = 0.01 lbs/capita/day

<i>7</i> -	SUMMARY OF COSTS	
	Alternative 1A - Drainfield at Site A Phase 1 - 12,000 gpd Phase 2 - 24,000 gpd	\$265,741 \$322,981
	Alternative 1A - Drainfield at Site B Phase 1 - 12,000 gpd Phase 2 - 24,000 gpd	\$277,691 \$334,931
	Alternative 1B - Drainfield at Site A Phase 1 - 12,000 gpd Phase 2 - 24,000 gpd	\$286,131 \$315,116
	Alternative 1B - Drainfield at Site B Phase 1 - 12,000 gpd Phase 2 - 24,000 gpd \$327,066	\$298,081
	<u> Alternative 2 - Package Treatment</u>	\$412,691

SELECTION AND RATIONALE

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We feel Alternative 1B - Drainfield at Site A is the best choice. This system ' requires low maintenance, does not discharge into the river, is out of the floodplain, requires the least amount of room of the non-discharging systems, and allows for growth in small increments. This alternative costs more in phase 1 because of building a 24,000 gpd recirculating filter while only processing 12,000 gpd. However, when growth occurs and the system increases to 24,000 gpd, the cost is less than the other types of non-discharging system.

Site A is preferred over Site B because it is closer to the Commercial District, it already has a topographic map, power is available, the slopes are more uniform, and only one owner is involved. All these factors make the overall costs about \$12,000 cheaper at Site A. (No land costs have been added.)

Alternative 1B takes into account today's needs and has a built-in ability to grow. The filter is built to handle a doubling of Mapleton's daily flow. When more growth occurs small cells (600 lineal feet of drainfield) are added to the system.

Alternative 1B will require about 4 acres while Alternative 1A will require 6.5 acres. Site A is owned by the U.S. Forest Service. The Mapleton Ranger District has indicated that they would allow the drainfield providing it does not interfere with their future development and that an equivalent site is not available on private lands. Alternative 1B requires about 4 acres. There is at least 14 acres of suitable land near and around the chemical storage building. There should be ample room for the drainfield plus Forest Service growth.

Site B is a private site with suitable soils. However, it is more expensive to use and there are possibly three owners that would be involved - Bonneville Power, Champion Lands and Davidson Industries. Bonneville Power has said it would be acceptable to place the drainfield under their powerlines. Champion Lands and Davidson Industries have not given a yes or no at the time of this writing.

User Fees for Selected Alternative

An estimate of the cost per year to the user has been made by making the following assumptions.

- 1. All pumps in the system will have a 20 year life.
- 2. All electrical controls and floats will have a 20 year life.
- 3. The recirculating filter will have a 50 year life.
- 4. The drainfield will have a 40 year life.
- 5. The drainfield, filter, sewer lines, and lot facilities will receive regular maintenance.
- 6. The first 5 years the replacement cost will be based on 32 users, the next 5 years on 48, and after that 64 users.
- 7. Alternative 1B would be used.

Pumps and Controls (All costs are per year unless otherwi	1-5 <u>Years</u> se noted)	5-10 Years	10-50 Years
Individual Pumps (\$600/unit) Pump Station (\$1200/unit) Recirculating Pump (\$3900/unit)	\$480 60 97	\$720 90 97	\$960 120 97
Drainfield	567	600	724
Filter	1,003	1,003	1,003
Misc. (fence, electricity)	375	375	375
Maintenance			
Lot Facility Pressure Sewer Filter Pumping Interceptor Tanks	880 250 750 350	1,100 350 850 450	1,600 500 1,000 700

Operation Costs	1-5	5-10	10-50
	Years	<u>Years</u>	<u>Years</u>
Collection System	1,000	1,000	1,000
Filter	1,000	1,000	1,000
Drainfield	350	450	500

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User Costs

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Total per year Cost per User per Month		\$8,085 \$ 14.03	
In gust three years - the	\$64.20	and \$20.2	*

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Plan addresses sewage problem

ByLARRY BACON The Register-Guard

MAPLETON - Officials say it may cost less than expected to fight Mapleton's battle against considerable seepage of unireated sewage into the Stustaw River.

A Eugene engineering firm is in the process of completing a plan for a system that will provide sewage disposal for businesses and homes in the heart of the worst-affected area. The ewage problem has plagued Mapleton for more than 15 years.

Tom Poage Engineering and Surveying Inc. says a sewage collection system with a community drainfield could be built to serve about 30 homes and businesses for \$206,000.

The Poage plan calls for each business or residence to have at least one sewage collection tank and a pump. Sewage would be pumped to a central collection point, and then up a hill on the west side of Highway 126 to U.S. Forest Service property tentatively identified for a three-acre community drainfield.

Randy Cox, a Mapleton pharmacy owner and member of a local task force that has been working on the sewer problem for more than a year, says Mapleton residents like the design and the price of Pouge's system.

"We were very pleased. It's an effective and relatively maintenance-free system at a very affordable cust to the community," he says.

The plan for the system was developed with an \$8,000 federal grant awarded in 1985 and administered by the Lane County Housing Authority and Community Services Agency, Task force numbers and Pauge Engineering are optimistic about chances for receiving a grant to pay must of the cust of the new system.

"I think they will get it. There is a definite health hazard up there," says Pouge engineer Mel Damewood.

Peter Thurston, a community development specialist with the housing authority, has lentative plans to seek a federal Department of Housing and Development community Urban "block grant" for the project. State lottery funds are another possibility, he Suys.

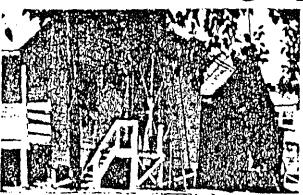
If all goes well, Thurston hopes the sewer system could be done by Noveniber 1986. It is unclear who would oversee the project and operate the sistem.

Thurston and task force members last week asked Port of Siuslaw comanissioners to take that responsibility, But Port Attorney David Clark doubts if the part could do so.

"It doesn't look like the port has the legal ability to own and operate a vistewater sewage disposit system," Clark says.

Lane County has such authority, he Sits, and the port and the county night "bootstrap" the port upo a sewsystem management position through an intergovernmental agreenent between the port and the county, Port commissioners have asked him to investigate that possibility.

"I feel it is the responsibility of the port district to help the people on this program," says Port President Stuart Jubiston of Florence. "After all the



Tainted water flows from a culvert in Mupleton

river belongs to all of us, and it's up to us to protect it."

Meanwhile, Cox says the project has virtually unanimous support from affected property owners who, like himself, haven't liked the Idea of putting sewage in the river. Because of the sewage problem, a building mora-torium nuw exists that prevents the opening of new businesses or the expansion of existing ones.

The row of old buildings between Highway 126 and the river are the reminants of the town's original business district. Some were built in days when the river was reparted as an

ceptable and logical way to dispose of sewage.

The area's soil type makes the use of seouc system drainfields unfeasible. and the lots are so small that in most cases there is inadequate room for drainfields. Individual septic systems also have been subject to periodic damage from flooding over the years.

Domewood estimates that at least half the indivudal sentic systems in the area proposed for the new community system are failing. The area runs tess

Highway 126 from the highway bridge to the former Champion International mill site now owned by Davidson Industries.

. "Fifty percent of the systems are failing, 10 percent are marginal, 10 percent are unobservable and 30 percent are good," he says.

At feast one business has a sewer ouifall running directly to the river. Damewood suys, and in other locutions, sewage effluent seeps to the river from septic tanks or drainfields. In some cases, buildings are constructed over the top of the drainfield so no repairs can be made, he says.

The proposed system would serve 18 businesses, 12 residences and a sixunit apartment building. One of the businesses is a small trailer park,

Poage estimates the current businesses and residences generate about 11,160 gallons of sewage a day. The proposed system would accommodate 12,000 gallons per day and could be expanded to handle more at a relativety low cost.

Regardless of what kind of grant is sought, Thurston says, benefiting prop-erly owners will likely be expected to share in some of the cost. He has told them the local matching share will probably be about 25 percent.

How the local cost would be divided among property owners has yet to be determined, but Cox says one-way to handle it might be to require each property, owner to buy the sewage holding tank required for the home or business. Sewer line easements and the drainfield site might also count loward the community's shure of the cost, Thurston says.

and \$64.00 Rat The sewer system is expected to be relatively inexpensive to operate. Coxsays cosis are expected to be about \$10 per month per user.

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The severity of the sewer problem In Mapleton came to light as a result of Lane County studies in 1968 and 1976.

The 1968 study showed that 49 percent of the septic systems in the Mapleton area were failing or marginal. The 1976 study showed that percentage had dropped to 17 percent, but it still identified the core area addressed by the latest study as having serious sewage problems.

A push for incorporation resulted from the 1968 report, but voters in 1974 defeated incorporation by an overwhelming majority,

A community sewer system was one of the gails of the incorporation advocates. The 1976 study said a com-munitywide system would cost in excess of \$1.7 million and that Idea was dropped because of the high cost.

Cox is confident a grant can be obtained, but he admits if none is available the sewer project may be stalled. The local economy is in a slump, and Cox doesn't unlicipate support for creating a new city or sewer district that could levy taxes to pay for a sewer system.

If county health officials, the state Department of Environmental Quality, or the state Health Division decide to get lough, however, the homes and businesses could face deadlines for pollution abutement.

The state also has the authority to force formation of a county service district or sewer district without a public vote to deal with health hazards such as threat n

THE REGISTER-GUARD, Eugene, Oregon, Thursday, November 14, 1985

Port agrees to take part in sewer project

By BILL CALDER For The Register-Guard

FLORENCE - An intergovernmental agreement that would enable Mapleton property owners to implement and manage a proposed sewage treatment plan came a step closer to reality Wendsday night when Port of Siuslaw commissioners voted to enter into the agreement.

A local sewage treatment task force and Lane County health officials have asked the port to provide support services and to act as a local authority to oversee a proposed treatment plan that would help solve a serious sewage discharge problem that has plagued the community for more than 15 years.

An engineering firm that is working on a treatment plan found that more than half the septic tanks in the Mapleton core area are failing. At least one business discharges sewage directly into the river. Other drainfields badly in need of repair are inactop of them.

Studies conducted by the county in 1968 and 1976 labeled the problem as "serious," particularly in the area along the west side of the Siuslaw River, where most businesses are located.

Subsequent efforts after the 1968 study to incorporate the community and to use taxes to finance a sewage treatment facility failed.

Earlier this year, an \$8,000 community block grant was awarded to Lane County to develop a plan to solve the sewage seepage and discharge problem. Tom Poage Engineering and Surveying Inc. is completing the plan that would serve about 30 homes and businesses.

The Poage plan calls for individual pumps and holding tanks to be installed for each property along the half-mile stretch from the Highway 126 bridge to the old Champion Mill site. A central collection tank and

cessible because buildings are built on pump would then move the effluent uphill to a drainfield on U.S. Forest Service land.

> The Poage plan, expected to cost about \$206,000, has pleased local task force members who have been spearheading the drive to find a solution to the problem. The task force and the county expect to build the system with grant money but the long range maintenance and operation of the system would be the responsibility of the property owners.

> Under the terms of the intergovernmental agreement, the property owners would have to incorporate themselves as a legal entity before entering into the agreement. Randy Cox, a representative from the Mapleton task force, said the property owners intend to incorporate as the Mapleton Wastewater Management Company. He gave port commissioners a signed statement to that effect Wednesday night.

> Still at issue is the question of who will pay for legal fees associated with the incorporation and intergovernmental agreement. Although port officials agreed to provide assistance once

the system is built, they were not in favor of helping the property owners incorporate.

Port attorney David Clark estimated the legal costs to property owners for the incorporation and intergovernmental agreement at \$500 to \$1,000.

Cox said the task force only has about \$400 left from the \$8,000 county grant. Legal fees associated with a new grant application cannot be reimbursed if the grant is awarded.

Port commissioners were reluctant to accept any financial responsibility for the sewage system but generally agreed that the terms of the intergovernmental agreement were acceptable. The port would provide certain support services and administrative assistance but the financial obligation would be the burden of the property owners' group.

Lane County would be the ultimate authority and would have the power to force compliance on owners who > refused to hook up to the system. The county would also be the lead agency on the grant application and would build the system.

EXHIBIT "D"

NEWS ARTICLES

(1) Various New Articles, in support of;

(a) User participation/parcels to be served

(b) Grant funds and estimated costs

(c) Misc. information as highlighted

DEQ11/24/92

Kogers opposes sewer plan

County offers to help form district to solve Mapleton problem

MAPLETON — The chairman of the Lane County Board of Commissioners told a group of Mapleton residents Thursday night that he opposes having the county operate a sewage collection system expected to alleviate a problem that has been plaguing property owners in the Mapleton business district for more than 15 years.

Chairman Bill Rogers said, however, that the county will continue to assist local property owners in finding the best way to organize a governmental, private or special district entity that would operate a sewage collection system in the business district.

Mapleton residents and business owners in an area south of Highway 126 have been seeking a solution to a sewage seepage problem for several years. The county and the state Department of Environment Quality have allowed businesses to discharge sewage into the Siuslaw River in violation of state law because because of a lack of money with which to build a collection system designed by Tom Poage Engineering Inc.

The Eugene engineering firm, in a study two years ago, found that 70 percent of all septic tanks within the Mapleton business district boundary were in "failing or marginal condition.

Last week, the state Intergovernmental Relation i Divi-

2(27/87 REGISTER GUARD

sion announced it had approved a request for \$319,000 in community development block grant funds to help pay for the system.

Several options were presented for discussion by Rogers, county legal counsel Teresa Wilson and Lane County Local Government Boundary Commission representative Steve Gordon. The boundary commission, appointed by the governor, oversees the creation of new special districts and governmental entities. Gordon said the commission looks most favorably on an organizational method that uses existing government agencies, such as Lane County or perhaps the Port of Sluslaw, as a lead agency.

Port of Siuslaw attorney David Clark ruled out the possibility of the port operating the system but said it has provided and will continue to provide administrative assistance until the business owners could decide how best to proceed.

Other options discussed included forming a county service district, incorporating Mapleton and forming a speclal sewer district. Most people at the meeting ruled out the possibility of forming a city and Gordon said the boundary commission would not look favorably on a county service district because it would be too much government for a system that may only serve about 30 parcels of land.

Two cities win, Lowell misses federal grant

By HARRY ESTEVE The Register-Guard

The Lane County towns of Mapleton and Oakridge came out winners, but Lowell was the big loser in this year's allotment of federal block grants, which were announced Wednesday in Salem.

Mapleton will receive \$319,000 to improve saver service to 30 property owners, while Oakridge will get \$157,000 to renovate a community center that bas fallen into disrepair, according to the announcement from Gov. Neil Goldschmidt's office.

Other communities receiving funding included, Harrisburg, Brownsville, Veneta and Coos Bay. Lane and Coos counties also were awarded grants.

For the second consecutive year, the city of Lowell fell just under the cutoff line, missing another chance at \$500,000. The money would have been used to help pay for a \$1.5 million project to build a sewage treatment plant below Dexter Dam.

The \$4 million pool of federal funds is administered by the state Intergovernmeanal Relations Division (IRD), which this year received grant applications from 43 communities, totaling \$13,458,000 in requests.

Lana Holman, a project coordinator for the division, said Lowell was denied because

Turn to GRANT, Page 2C

2/19/87 REGISTER GUARD

cosed facility on land owned by the U orps of Engineers, which leases the 4 rcei to the Lowell School District. Sor s and residents want the land kept in t as an outdoor education area.

ir Thurston, Lane County's commun bnomic development manager who h Lowell plan the sewer system, said he w nend that the Lowell City Council cont ork on the treatment facility and try age ar to get a community development blo

link it will be very difficult to achieve t 1988, deadline for a fully functioning s Thurston said. "But I think on the oth hey can still do it in 1988 sometin

Mapleton sewer plan given green light & Meeting set for Thursday will determine next step

By LOGAN HARRIS Of The Siuslaw News

A sewage problem that has plagued the Mapleton commercial district for over 17 years may soon see a resolution if a recent announcement by Gov. Neil Goldschmidt is any indication.

The city of Mapleton was among 47 Oregon cities and counties receiving over \$7.5 million in 1987 Oregon Community Development (OCD) funds, according to an announcement made by the governor last Wednesday, Feb. 18.

Mapleton, will receive \$319,281 in OCD funds, essentially giving the community the green light to establish a sewage treatment system to replace failing or marginal septic systems in the commercial core area.

A meeting of the Mapleton Commercial Area Owners Association will take place at the Mapleton Elementary School Board Room Feb. 26, at 7 p.m. The purpose of the meeting will be to

cuss all possible means for provid-...g perpetual management of the system, as well as any other concerns held by community members and affected land owners.

Scheduled to attend the meeting are Lane County Commissioners Bill

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We may have to vote it down if we can't afford it.' Land owner Leon Berry

Rogers and Ellie Dumdi, as well as Peter Thurston, community development coordinator for the county housing authority who has been involved in the project for some four years. The engineer who undertook an \$8,000 study to develop a plan for the new system in 1985 will also attend the meeting.

Thurston was pleased that the Mapleton project was awarded the \$319,281, but indicated that the amount fell short of the original request. Mapleton had asked. for \$333,781.

"The grant was funded substantial-'he way it was presented," he said, ut they cut way back on the administration allowance."

Thurston indicated that of three considerations for public works projects (project construction, engineering and administration), the Intergovernmental Relations Division (which monitors the administration) the OCD program) cut back on funding of administration for projects.

Untreated sewage flowing directly or seeping below ground into the Siuslaw River because of failing or marginal septic systems is the crux of Mapleton's problem. The severity of the problem came to light as a result of Lane County studies in 1968 and 1976. The studies suggested that individual septic systems should be upgraded in the area or the town should incorporate and a community wastewater treatment district should be formed.

Mapleton residents, however, overwhelmingly opposed incorporation in 1974 and poor soil and other physical restraints have prohibited the upgrading of individual systems.

Tom Poage Engineering and Surveying Co. completed a plan in 1985 that would serve 18 businesses, 12 houses and a six-unit apartment complex within the target area.

Leon Berry, a land owner in the farget area, questions the feasibility of the Poage engineering plan for cost effectiveness.

"There is the possibility we may not the able to afford it," notes Berry. "We need more information on the monthly breakdown of what we will pay.

"I'm not against getting a new sew, er system or the formation of the sewer district," Berry added. "But we need some of these engineer's facts and a figures brought out in the open. We may have to your it down if we can't afford it."

That information should be available at Thursday's meeting. The meeting will also explore which means of organization and intergovernmental cooperation should be established to manage the prospective facilities.

According to Lane County Commissioner Bill Rogers, alternatives include: 1), a local association of owners (corporation); 2), a sanitary district; and 3), a county service district.

The association of owners would provide for a local corporation of property owners to own and operate the facilities constructed with grant funds and local funds. County and/or Port involvement may occur by contract. The local property owners have taken steps to form an association, so this alternative is in process. The state DEQ has expressed concern about a private organizational structure because there would be no taxation, as-

Continued on page 7-A

sessment or enforcement authority. The sanitary district is a municipal corporation formed under state law to manage the sewer facility. The board

Continued

of directors is elected from and by the residents of the service area. The Lane County Board of Commissioners approves formation of the district, according to Rogers.

The sanitary district owns the facilities. Principal advantages include local control with municipal authority to tax and assess local property to run the system. The main disadvantage is that there are few permanent residents of the commercial area to make up the district board. Rogers said.

The county service district provides for the county board of commissioners to be the board of directors of a district to serve the Mapleton commercial area. Full ownership, power to assess, and enforcement rests with the County Service District Board. A local association of owners may be involved in an advisory capacity and/or as a contractor to operate and maintain the system for the district.

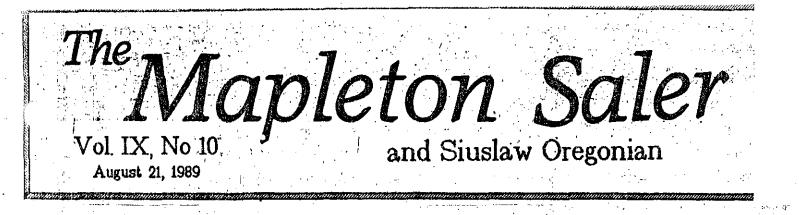
In all cases where a community facility is implemented the Lane County Boundary Commission will have to give its approval.

"We've still got a lot of work ahead of us, but we're further than we've ever been (to a resolution)," noted Marilla Kessel, the pro tem chairwoman for the Mapleton Commercial Area Owners Association. "We'll find out our next step at Thursday's meeting."

There is little doubt that the struggle for an adequate sewage treatment system in the Mapleton commercial

district is far from resolved, but with the news of the grant award last week affected landowners can see the light at/the end of the tunnel.

(The news is also positive for economic development for the Mapleton area, Until the problem is solved, a building moratorium exists in Mapleton that prohibits the opening of new businesses or the expansion of existing ones.



Sewer system nears date for star

Sept. 1 may be celebration time for downtown Mapleton. Around that time, the area's sewer system is expected to be operating, at least experimentally.

The contracting firm of D.U. Kee, which has been installing the system since spring, estimates that the system will be completed before the end of this month, and operating on a test basis by the first of September.

Members of the Mapleton Commercial Area Owners Association, which will own the plant after Lane County accepts it from the contractor, are being notified of the Sept. 1 startup date, and reminded that monthly operating fees are due then.

The Siuslaw Valley Bank's

Mapleton office will accept payments and deposit them in the association's account, as is done for water bills. Completion of the wastewater treatment plan is the climax of a struggle lasting more than 10 years.

The struggle, helped along by Rep. Larry Campbell, County Commissioner Ellie Dumdi and Peter Thurston of the county economic development department, finally bore fruit with the award of a \$319,000 state grant, to be matched by local funds of \$70,000.

After a year of bureaucratic wrangling over design, permits, agreements between the county and the local association, and other complications,

See SEWER, Page 3

the land between Highway 126 and the river. Some parcels were excluded because of being in the river's floodway and being undeveloped.

Not all properties within the boundaries are in the association; some owners have K+ declined.

Each property in the system will have its own specially designed septic tank, and a gravity flow system will carry wastewater to the treatment plant.

There it will be filtered in a pea gravel filter, chlorinated to purify it, then dechlorinated before it goes into the Siuslaw River.

If all Hook-up Vees Required to be Paid an or Refore 3/31/89

the late Oale to which it was announced that not all owners - come on line" was ourastation, to those who Paid their Hook up thes by the 3/31/89 dealline.

To Discover that (14) Individuals was the extent of asso. membership was shocking - Sul offerhed no Recourse to members to Backout.

Sewe

From Page 1

bids were invited late last year and opened in December. They were all too high; the nearest was Kee's \$344,000 bid, which was approved.

Then the modification process began, to bring the cost down. * That work done, the Kee firm broke ground March 27 at the treatment plant site, next to the Siuslaw Valley Bank's office.

The association's boundaries run from just north of the Siuslaw River bridge to just south of the Forest Service office, and include nearly all

EXHIBIT "E"

LCLGB AGENDA/STAFF NOTES 3/3/88

(1) Excerpts from this Agenda/Staff Notes is in support of;

- (a) Construction costs
- (b) User Participation/Parcels to be served
- (c) System Layout/Boundary Map
- (d) Misc. Information as highlighted

DEQ/11/24/92

AGENDA

LANE COUNTY LOCAL GOVERNMENT BOUNDARY COMMISSION

Leaburg Community Center Leaburg, Oregon March 3, 1988 7:30 p.m.

- I. CALL TO ORDER ROLL CALL
- II. NEW BUSINESS PUBLIC HEARING

<u>Merger of the Nimrod Rural Fire Protection District into the McKenzie</u> <u>Rural Fire Protection District</u>

 A. BC File F MK 88 - 09 Joint Resolution by Nimrod RFPD and McKenzie RFPD Boards Located along the McKenzie Highway from Ben and Kay Dorris Park to approximately the community of Blue River Area: ±31.29 square miles combined Estimate of population: 6,141 combined

<u>Annexation of Territory to the City of Eugene (Willow Creek Islands)</u>

 B. BC File C EU 88 - 09 Resolution 4076 of the City of Eugene Located in southwest Eugene, south of West 11th Avenue between Bertelsen Road and Terry Street Acres: 283 Estimate of population: 20

Sewer System Establishment (Mapleton)

C. BC File X S 88 - 10

Petition by Lane County

Located in the community of Mapleton, generally from the intersection of Highway 126 and Highway 36 southerly, north of and including the U. S. Post Office, east of Highway 126 and west of Siuslaw River

Area: ±25.7 acres-to be served

Estimate of population: 30

III. OTHER BUSINESS

A. Urban-Rural Lands Synposium (attachment)

- B. Status of Marxen Annexation (C EU 87 29)
- C. Other

LCLGBC Agenda - March 3, 1988 Page 1 of 1

Sewer System Establishment (Mapleton)

11.C. BC File X S 88 - 10

Petition of Lane County (Mapleton Sewer) Action under ORS 199.464 of the boundary commission law Received February 2, 1988 Action to be taken by May 2, 1988 Advertised in the REGISTER-GUARD on February 13, 1988 Notices mailed February 18, 1988 Notice of public hearing posted in area and Lane County courthouse on February 14, 1988

Description

- Located in Mapleton, generally from the intersection of Highway 126 and Highway 36 southerly to the U. S. Post Office, east of Highway 126 and west of the Siuslaw River
 - Area: 25.7 acres to be served

* Estimate of population: 30

Applicable comprehensive plan: Lane County Rural Comprehensive Plan (acknowledged September 1984) and Lane County Coastal Resources Management Plan (adopted 1980, amended 1982 and 1983)

- Existing land use: Commercial, industrial, residential
- Existing zoning in Lane County: RR-1, rural residential; C-2, neighborhood commercial; C-3, commercial; CR, rural commercial; and M-3, heavy industrial, with /DMS, dredged material/mitigation site; /RD, residential development; and /MD, mixed development overlay zones
- Existing public services: Fire (Siuslaw Rural Fire Protection District #2), water (Mapleton Water District), roads (Lane County/Oregon State Highway), police (Lane County Sheriff/Oregon State Police), schools (District 32), on-site sewage disposal system, electric (Central Lincoln PUD)

Reason for System Establishment

Lane County and the Mapleton Commercial Area Owners Association desire a private sewer system to serve the commercial area of Mapleton, Oregon, an area with a high percentage of failing septic systems and a history of septic system failure.

In conformance with OAR 191-05-065(3), these staff notes are incorporated as part of the record of the boundary commission's public hearing of March 3, 1988.

This proposal was filed with the boundary commission in accordance with ORS 199.464 by petition from Lane County on behalf of the Mapleton Commercial Area Owners Association on February 2, 1988.

The proposal filed with the commission included all necessary items:

Initiating letter Filing fee Assessor's map Legal description

LCLGBC Staff Notes - March 3, 1988 Page II-C-1 Boundary commission information form

Facility Plan, including project description, discussion of environmental impacts, technical feasibility study, and financial feasibility study Draft Management Agreement between Lane County and the Association Mapleton Commercial Area Owners Association Articles of Incorporation and Bylaws

12

DEQ preliminary approval letter

This proposal is in the Mapleton commercial area, east of Highway 126 and west of the Siuslaw River. The area extends for about three-quarters of a mile, from Washington Street, just north of the intersection of Highways 36 and 126, south to the end of the commercial area (refer to Maps II-C-1 and II-C-2).

Property ownership, acreage, and zoning are shown in Exhibit II-C-1. There are 39 tax lots wholly within the proposed service area and 4 tax lots partially within the proposed service area. Seventeen tax lots are zoned commercial, 25 tax lots are zoned residential, and one tax lot is zoned industrial. Sixteen of the 39 tax lots are undeveloped.

Exhibit II-C-2 is a memo from Peter Thurston to the boundary commission. It contains background information on the history of sewage disposal problems in Mapleton, the service area boundary, the citizen involvement process, the sewerage and wastewater treatment facility, economic feasibility, environmental review, and comprehensive plan compliance.

The proposed private sewage system will provide primary and secondary treatment with a design capacity of 24,000 gallons per day. Twenty-five connections are planned currently and an additional 18 (12 commercial and 6 residential) connections are possible in the future.

The proposed private sewage system consists of:

- a package sewage treatment plant, utilizing a pea gravel filter, chlorination and declorination equipment, and a 4-inch outfall into the Siuslaw River
- 1,630 lineal feet of 4-inch diameter feeder line
- 2,710 lineal feet of 4-inch diameter pipe
- 2,000 lineal feet of 2-inch diameter pipe
- 2 pump stations

BOUNDARY COMMISSION REFERRALS

Boundary commission referrals were sent to the Mapleton Water District, Lane County Land Management Division, Lane County Board of Commissioners, Lane County Environmental Health Division and the Oregon State Department of Environmental Quality. No comments were received by February 24, 1988.

BOUNDARY COMMISSION STANDARDS - STAFF ANALYSIS

In this section of the staff notes, each of the applicable boundary commission standards are addressed. These standards are derived from ORS 199 and the boundary commission's policy administrative rule [OAR 191-30-020(4)].

LCLGBC Staff Notes - March 3, 1988 Page II-C-2

- 3. This proposal involves creation of a private sewer system to serve $42 \text{ }_{z} \nu$ parcels in the Mapleton area with a total area of 25.7 acres. The area is presently developed with commercial and residential uses, and is zoned
 - RR-1, rural residential; C-2, neighborhood commercial; C-3, commercial; CR, rural commercial; M-3, heavy industrial; with /DMS, dredged material/mitigation site; /RD, residential development; and /MD, shorelands mixed development overlay zones. The property is also subject to the Coastal Resources Management Plan of Lane County.
- 4. The system includes a package sewage treatment plant, an outfall into the Siuslaw River, feeder line and sewer lines to serve individual parcels and two pump stations. Sewage will receive secondary treatment and will be dechlorinated before discharge.

Provide an impartial forum for resolution of local jurisdictional questions. Consider the affects of the boundary change on other units of governments. ORS 199.410(1)(b) and 199.410(2)(c)

- 5. The boundary commission held a public hearing on March 3, 1988. Notice of the public hearing was given in accordance with ORS 199 provisions. All interested parties were given a reasonable opportunity to be heard.
- 6. The proposal was coordinated with Lane County, the Mapleton Water District and the Oregon State Department of Environmental Quality (DEQ). No comments or objections have been submitted to the boundary commission regarding this proposal. Lane County is working directly with the DEQ to address their concerns and requirements as part of the permit process required for project construction.

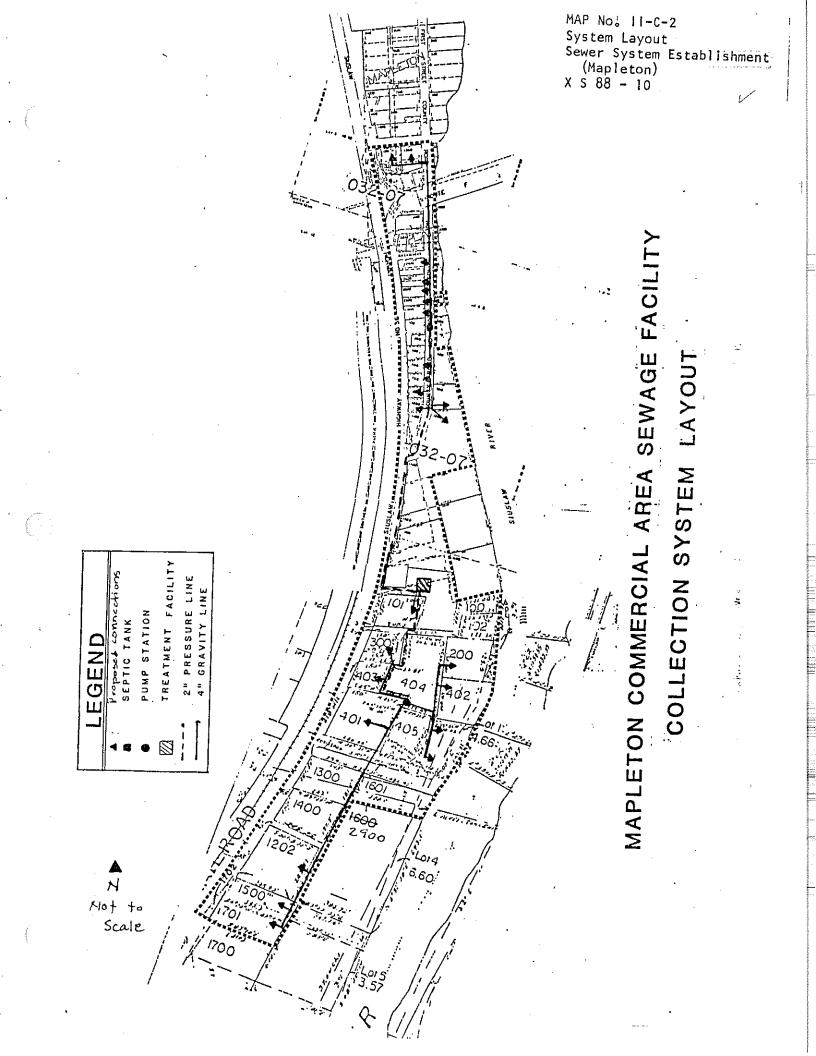
Consider the orderly determination and adjustment of local government boundaries to best meet the needs of Lane County and Oregon. Consider alternative solutions where intergovernmental options are identified and make decisions based on the most effective long-range option among identified alternatives. ORS 199.410(1)(a) and 199.410(2)(c)

7. Creation of this private sewage treatment system is the most logical and economical method for alleviating the sewage disposal problems of the Mapleton commercial area. No other private or public sewer providers exist in the vicinity of the project area.

Make boundary commission determinations which are consistent with acknowledged local comprehensive plans. Assure an adequate quality and quantity of public services required in the comprehensive plan to meet existing and future growth. For major boundary changes, there must be assurance that the proposed unit of government is financially viable. ORS 199.410(1)(d), 199.410(2)(b), and 199.410(2)(d)

8. The site of the proposed sewage treatment facility is designated residential in the Lane County Rural Comprehensive Plan which was acknowedged by LCDC in September 1984, and is zoned RR-1 (rural residential), with /MD (mixed development), /FP (floodplain) and /DMS (dredge material/mitigation site) overlay zones. Sewer lines can be sited in all of the zones located within the proposed system area. The Lane Code, Chapter 16.231 (4)(r) conditionally permits the siting of sewage treatment

LCLGBC Staff Notes - March 3, 1988 Page 11-C-6



personnel will enforce existing health statutes by citing those property owners that continue to occupy buildings whose septic systems remain in noncompliance with Oregon law. Owners representing the majority of the properties within the proposed Service Area have signed an agreement to join the system and thereby become members of the Association. Membership in the system has been encouraged in order to correct the current threat to the public health posed by the existing septic situation.

THE SEWERAGE AND WASTEWATER TREATMENT FACILITY

Those properties that elect to join the system will be provided with connection via on-site interception tanks and a sewerage pipe sytem to a treatment facility located within the Service Area. The facility itself will consist of a recirculating pea gravel filter, followed by a disinfectant process, dechlorination and, after complete treatment, discharge into the Siuslaw River.

The facility has a design capacity of 24,000 gallons per day. Although this represents a relatively small system, the engineer has concluded that the capacity would handle the current wastewater flows, and normal growth within the proposed Service Area. Growth of the Commercial District is constrained by existing neighboring development, Highway 126 and the Siuslaw River. Growth is further limited by the Service Area's location within the floodplain and floodway.

ECONOMIC FEASABILITY

An extensive review of the financial viability of the system was completed by Tom Poage Engineering and Surveying, Inc. as part of its Facility Plan (attached). A review was made of the initial construction costs of the system and of projected operation and maintenance costs. Both these figures were within the original amounts the Association had been quoting its members and to which the members agreed at the time they joined the Association.

The vast majority of construction costs will be met by the grant from the Oregon Economic Development Department. The "user match" portion of the construction budget has been underwritten by Siuslaw Valley Bank. Siuslaw Valley Bank has also agreed to pay the initial charges of all residential owner-occupants over the age of 65 to ensure that no party is subject to undo hardship in the community's effort to alleviate the current health threat.

Using the latest available operation and maintenance figures, the engineer has reaffirmed that the user charges for residential customers should not exceed the originally envisioned \$40 a month. The Association reaffirmed its ability to pay these fees at a meeting in January 1988. The Association and its attorney are currently developing System Use Rules and Charges to ensure most equitable distribution of user fees. From the beginning, Association members have unanimously agreed that commercial properties should bear a greater percentage of the system costs.

ENVIRONMENIAL REVIEW

An extensive environmental review has been undertaken by Lane County and project engineer, Tom Poage Engineering and Surveying, Inc. A substantial portion of that review is summarized in the Facility Plan. Both the Oregon State Department of Fish and Wildlife and the Oregon Department of Environmental Quality have agreed that the project will have no negative 11-0-2

EXHIBIT "F"

NEWS ARTICLES/TIMBER ECONOMIC DECLINE

- (1) Various News Articles in support of;
 - (a) Recent Economic Timber Decline as it effects the Mapleton Community

1 of 3

DEQ/11/24/92

Florence, Oregon, Wednesday, September 23, 1992

Davidson cutting 50 jobs

By BOB SERRA Of The Siuslaw News

Workers at Davidson Industries saw and chip mills in Mapleton have been put on notice that the company will lay off about 50 permanent employees sometime between now and the end of the year.

Davidson spokesman Aubrey Pendergrass said on Monday that the

We've never had a permanent layoff like that. We've gotten smaller through attrition over the past years, but we've never reached a point where normal attrition isn't enough. <u>Aubrey Pendergrass</u> employees were notified of the layoffs during a company meeting Sept. 11.

"We've put the crew on notice that sometime between now and Thanksgiving or the end of the year we will reduce our work force by about 50 people," Pendergrass said.

eng bax-olls

He attributed the layoffs to a poor log supply that will not allow the company to sustain its current level of production. The layoffs are not market related, he said.

The layoffs will affect both Davidson's lumber mill and chipping plant. The chip mill currently is running at about half capacity, and the lumber mill will be reduced to one single shift of workers, Pendergrass said.

The mills currently employ between 150 and 160 permanent workers.

The layoffs will be the largest in the company's history, Pendergrass said.

""We've never had a permanent layoff like that. We've gotten smaller through attrition over the past years, but we've never reached a point where normal attrition isn't enough with the timber supply available," he said.

City discusses future with county

By ALICIA DE NICOLA Of The Siuslaw News 9/23/92

The future of Florence and the direction of its growth dominated conversation Monday night when the Lane County Commissioners traveled to the coast to dine with the Florence City Council and city staff.

Commissioner Jack Roberts did not attend.

Topping the agenda was an attempt to reach a consensus on an urban transition agreement for the city and county to follow in order

Council-

to facilitate the city's annexation of future property within the urban growth boundary north and east of Florence.

"The idea of an urban transition agreement was introduced two years ago, and we'd like to bring it back before the board," said city Planning Director Laura Gillispie.

While the county commissioners said they were supportive of the idea of an agreement, they added that financial constraints within the county due to loss of O & C timber receipts would play a part in their enthusiasm toward an agreement. "We are in the process of looking at a lot of reorganization within county departments," said County Commissioner Ellie Dumdi. "And I wonder if it would be a better idea if we moved farther along in that process before we discuss this because of budgetary constraints."

Commissioner Steve Cornacchia added that considerations were different in the past with previous agreements that the county has made with other cities.

Continued on page 11

Continued from page 1-A

"Considerations at that time," Cornacchia said, "were more the interest of the cities having a say in the urban growth boundaries around them and their willingness to take over those functions; that was the primary motivation. Now, however, financial consideration, as far as the county is concerned, becomes paramount."

Jerry Rust, however, said that the commissioners were aware that Florence was the hottest growth area in the county and suggested the possibility of a full-fledged consolidation with Florence.

But City Councilor Roger McCorkle told commissioners that the county's current codes within the urban growth boundary presented problems to the city as it annexed those areas.

"When we annex property in the urban grow" area π it's a real problem with unty standards that

have been met that don't even come close to meeting city standards," McCorkle said. "Then we have to deal with the problem at a later time. If there's a way of working out steps so that the county, within the urban growth boundary at least...could simply raise their standards to a little closer with the city's,"

The commission promised to have its staff analyze its workload and meet with Gillispie to discuss the issue.

In addition to an urban transition agreement, city council members also discussed the city jail with commissioners, prefacing the discussion with an acknowledgment of the county's budget concerns.

The Florence City Jail was inspected last year by the National Institute of Corrections (NIC). In its report the NIC called the jail a legal liability and suggested that a new jail be constructed.

Commissioners suggested that Florence should complete a fullscale study to decide whether a jail is even cost effective for the city.

While city council members have been in consensus that a new jail should be top priority, City Manager Ken Hobson said just such a study is currently under way.

Third on the meeting agenda was the all-events center project. The city explained their latest step in appointing a committee to move the project forward. While Mayor Wilbur Ternyik said that he promised the commissioners that the city council would not come back to the commission to ask for more money, there were people in the community who believed that some of the future county room taxes should be returned to Florence for the all-events center.

Corna 1 said he didn't know

that the idea of additional funds from the county had ever been presented to the county.

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"I don't know that it's ever been presented to us to look at the entire construction costs," Cornacchia said. "I'm not saying it's inappropriate, I'm saying it's never come here....I'm not giving you a commitment that I'm now going to give you the full cost....Before we go further and say you have to find all the rest, I'm just suggesting that someone think about there maybe other help in the room tax that hasn't been asked for yet."

To wrap up the meeting, Lane County Land Management Division Manager Roy Burns gave a synopsis of the county's proposed Clear Lake Watershed Protection Zone management plan, and the city renewed its commitment to wells and staying neutral on the Heceta issue.

Date: January 20, 1993

To: Environmental Quality Commission

From: Harold Sawyer

Subject: Agenda Item 1, January 28, 1993 Work Session

Presentation and Discussion of Findings on Wastewater Treatment Costs - A Case Study

Attached is the December 31, 1992 Review Draft of a report entitled "Wastewater Treatment Costs - A Case Study" prepared by OSU Graduate Student Brett Fried.

This study and report was triggered by Commission discussions during the deliberations on the proposed waste load allocation for the James River Halsey Recycle Facility.

Brett will make a brief presentation at the beginning of the work session and will participate in the discussion.

Environmental Quality Commission

Rule Adoption ItemX Action ItemInformation Item

Title:

Bond Issuance Resolution for Series 1993 A Pollution Control Bonds

Summary:

The Department is seeking authorization to issue and sell \$85 million in pollution control bonds. As part of the implementation plan for the protection of drinking water in mid-Multnomah County, the Department purchases Special Assessment bonds from the Cities of Portland and Gresham. The Department also funds the required 20% match for State Revolving Funds by selling pollution control bonds. In this sale, the Department also intends to sell advance refunding bonds to retire Series 1977 bonds, resulting in a net interest savings of approximately \$5 million. The Department is seeking the Commission's approval of a resolution authorizing the sale of up to \$85 million in pollution control bonds for these purposes.

Department Recommendation:

The Department recommends the Commission adopt the resolution as presented in Attachment A together with the supporting findings presented in the staff report as conclusions, authorizing issuance of bonds.

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	hydia Daylor	Jell Hanse	
Report Author	Division Administrator	Director	

January 20, 1993

[†]A large print copy of this report is available upon request.

Memorandum[†]

Date: January 12, 1993

To: Environmental Quality Commission

From: Fred Hansen, Director

Subject: Agenda Item I, January 29, 1993, EQC Meeting

Bond Issuance Resolution for Series 1993 A Pollution Control Bonds.

Statement of the Issue

The Department is seeking authorization to issue and sell not more than \$85 million in pollution control bonds. Proceeds from these bonds will be used to:

1) Purchase special assessment bonds from the City of Portland in an amount not to exceed \$60 million.

2) Fund the Sewer Assessment Deferral Loan Program (SADL) and provide the State match for the State Revolving Fund (SRF); and

3) Refund the outstanding Series 1977 Pollution Control Bonds.

The new bond sale is scheduled to take place along with a sale of bonds for the Department of Housing and Community Services in April, 1993. The refunding bonds may be sold at that time or as a separate negotiated sale.

Background

1) At its June 29, 1990 meeting the Commission approved Intergovernmental Agreements between the Department and the Cities of Portland and Gresham. The agreements are part of the implementation plan for the protection of drinking water in mid-Multnomah county. The agreements establish a mechanism for financing sewer construction; it calls for the Department to purchase Special Assessment Bonds (SABs) issued by the cities with simultaneously issued State of Oregon Pollution control Bonds. To date the Department has purchased \$13.845 million in City of Portland SABs and \$5.255 million in City of Gresham SABs.

[†]A large print copy of this report is available upon request.

Memo To: Environmental Quality Commission Agenda Item \underline{I} January 12, 1993 Meeting Page 2

> 2) The Department estimates it will require \$2.98 million in State match for the SRF during the third and fourth quarters of calendar 1993 and \$2.5 million in funding for the SADL program.

3) In addition, the Department is seeking authorization to sell approximately \$18 million in advance refunding bonds. The proceeds from the refunding bonds will be used to refund the outstanding Series 1977 bonds, and restructure the debt service schedule. This refunding is part of an overall restructuring plan which should, when coupled with a redemption of the 1980 bonds, result in a net interest savings of up to \$5 million. The 1977 bonds will be called on the next principal payment date which is May 1, 1993.

Authority to Address the Issue

The Commission has the authority to authorize the issuance of bonds and the uses to which the proceeds may be put under ORS 468.195 - .260 and ORS 468.427(2). In addition, all proposed uses of bond proceeds are set forth in the Department's legislatively approved budget for the 1991 -1993 biennium. The proposed amounts of the bond sale are within the bonding limits approved by the 1991 Legislature in both the Department's budget and the overall bond bill (Chapters 642 and 646, 1991 Oregon Laws.)

Alternatives and Evaluation

The sale of Pollution Control Bonds is currently the only mechanism available for the financing of these programs. If the Commission does not act at its January meeting, the Department will be unable to participate in the joint bond sale scheduled for April, 1993. The alternative is a later stand-alone sale by the Department which would be considerably more expensive as the costs of bond issuance would have to be borne solely by the Department, rather than be shared with another agency. The costs of an original bond issue tend to be relatively fixed and inelastic with respect to size of bond issue. Memo To: Environmental Quality Commission Agenda Item I January 12, 1993 Meeting Page $\bigcirc 3$

Summary of Any Prior Public Input Opportunity

The issuance of bonds and use of bond proceeds was discussed in the Governor's Recommended Budget for the 1991/93 biennium and with the Joint Legislative Committee on Ways and Means during the budget review and approval process.

In addition, there was opportunity for public input at the following Commission meetings:

May 25, 1990. Agenda Item N dealt with pollution control bonds, background on the intergovernmental agreement provisions and future bond sale for mid-Multnomah County sewers

June 29, 1990. Agenda Item O was a review of the intergovernmental agreement provisions and authorization of bond sales for mid-Multnomah County sewers.

August 10, 1990. Agenda Item M2 contained authorization to issue bonds, review of bond purchase agreements and approval for the purchase of special assessment bonds.

September 18, 1991. Agenda Item I was authorization to issue pollution control bonds.

June 1, 1992. Agenda Item J authorized issuance of pollution control bonds and purchase of special assessment bonds.

December 11, 1992. Agenda Item H authorized use of bond proceeds for SRF match, as well as SADLP, Orphan Site cleanup and purchase of special assessment bonds.

Conclusions

- The Commission has the authority to authorize the bond sales and use of proceeds.
- The sale of bonds is the only mechanism available to provide funds for these programs.
- Bond proceeds will be used to finance programs authorized by the Legislature and to carry out the policy aims of the Commission
- It is more economical and efficient for the Department to participate in the April bond sale than to sell new bonds on its own at some other time.

Recommendation for Commission Action

It is recommended that the Commission adopt a RESOLUTION AUTHORIZING AND REQUESTING ISSUANCE OF BONDS as presented in Attachment A of the Department Staff Report together with the supporting findings presented above.

Attachments

Resolution Α.

Reference Documents (available upon request)

- ORS 468.195 to 468.260, ORS 468.427(2) 1.
- Chapters 642 and 646, 1991 Oregon Laws 2.
- 3. OAR 340-81-005-100

Approved:

Section: <u>pydea Daylon</u> Division: <u>Pydea Daylon</u>

Report Prepared By: Barrett MacDougall

Phone: 229-5355

Date Prepared: December 30, 1992

RESOLUTION AUTHORIZING AND REQUESTING ISSUANCE OF BONDS

The Environmental Quality Commission of the State of Oregon finds:

A. The Department of Environmental Quality (the "Department") has entered into intergovernmental agreements with the cities of Portland and Gresham (the "Cities"). The intergovernmental agreements contemplate that the State of Oregon will issue general obligation pollution control bonds to finance the purchase of special assessment improvement bonds or other obligations of the Cities (the "Assessment Bonds"). The Cities will issue the Assessment Bonds to finance sewer system improvements in mid-Multnomah County pursuant to the Mid-County Sewer Implementation Plan. It is now desirable to authorize issuance of general obligation pollution control bonds to finance the purchase of the Assessment Bonds which the Cities propose to issue this calendar year in accordance with the intergovernmental agreements.

B. At its 1991 regular session, the Oregon Legislature authorized and directed the Department to fund the State's assessment deferral loan program and the local match for the State Revolving Fund program through the issuance of general obligation pollution control bonds. It is now desirable to authorize issuance of general obligation pollution control bonds to finance a portion of the costs of these programs.

C. It may be possible to refund outstanding general obligation pollution control bonds to produce debt service savings and to favorably restructure permanent debt. It is now desirable to authorize issuance of general obligation pollution control bonds to refund outstanding bonds.

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D. Oregon Revised Statutes, Section 286.031, provides that all bonds of the State of Oregon shall be issued by the State Treasurer.

The Environmental Quality Commission of the State of Oregon hereby resolves:

Section 1. Issue. The State Treasurer of the State of Oregon is hereby authorized and requested to issue State of Oregon general obligation pollution control bonds ("Pollution Control Bonds") in amounts which the State Treasurer determines, after consultation with the Director of the Department or the Director's designee, will be sufficient to purchase the Assessment Bonds to be issued by the Cities this calendar year, to fund the assessment deferral loan program, to fund the State Revolving Fund program, to refund outstanding bonds to produce debt service savings and favorably restructure permanent debt, and to pay costs associated with issuing the Pollution Control Bonds. The Pollution Control Bonds shall mature, bear interest, be subject to redemption, be in such series, and otherwise be issued and sold upon the terms established by the State Treasurer after consultation with the Director of the Department or the Director's designee.

Section 2. Tax Exempt Status. The Department shall comply with all provisions of the internal Revenue Code of the 1986, as amended (the "Code") which are required for interest of the Pollution Control Bonds to be excludable from gross income under the Code. The

Department shall take all steps required so that the Pollution Control Bonds will not be "private activity bonds" under Section 141 of the Code, and will not be "arbitrage bonds" under Section 148 of Code. The Department shall pay any rebates or penalties which may be due to the United States in connection with the Pollution Control Bonds under Section 148 of the Code. The Director of the Department or the Director's designee may enter into covenants, on behalf of the Department, regarding the maintenance of the tax-exempt status of the Pollution Control Bonds.

Section 3. Other Action. The Director of the Department or the Director's designee may, on behalf of the Department, execute any agreements or certificates, and take any other action of the Director or the Director's designee reasonably deems necessary or desirable to issue and sell the pollution Control Bonds, to purchase the City's Assessment Bonds, to fund the assessment deferral loan program and the State Revolving Fund program, and to refund bonds in accordance with this resolution.

Attachment A

Environmental Quality Commission

x Rule Adoption Item Action Item Information Item

Agenda Item <u>J</u> January 28-29, 1993 Meeting

Title:

Proposed adoption of Air Quality Division housekeeping amendments, Oregon Administrative Rules Chapter 340, Division 13, 14 and 20 through 34.

Summary:

The proposed amendments to DEQ air quality regulations are intended to address only housekeeping issues. This includes updating statutory citations, removing passed compliance dates and outdated regulations, and correcting typographical and grammatical errors. The amendments have no known administrative, legal or economic affect. The goal of the amendments is to streamline agency rules and generally make them clearer.

The rule amendments were primarily developed through internal staff review of the rules. One housekeeping issue came from the public comments made as a part of the triennial rule review process. (This review is described in more detail in an informational report included on this meeting agenda). An advisory committee or task force was not involved in the review of this rule package since the amendments were not intended to address substantive issues.

One public comment was received on this rule package. The writer raised concerns that some of the amendments were, in fact, substantive. As a result, two amendments were removed from the package and will be proposed in another rule making at a later date. The staff also discovered a few additional housekeeping changes during the public comment period. These amendments are also included for adoption at this time.

Department Recommendation:

It is recommended that the Commission adopt the amendments regarding housekeeping changes to air quality rules as presented in Attachment A of the Department Staff Report. For rules which are currently part of the State Implementation Plan (as identified by a footnote to that effect under each applicable rule), the amendments are adopted as revisions to the State of Oregon Clean Air Act Implementation Plan under OAR 340-20-047.

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Report Author	Division Administrator	Director	
January 6, 1993	[†] A large print c available upon requ	opy of this report lest.	is

State of Oregon Department of Environmental Quality

Memorandum

Date: December 29, 1992

To: Environmental Quality Commission

From: Fred Hansen, Director

Subject: Agenda Item J, January 28-29, 1993, EQC Meeting

Proposed adoption of Air Quality Division housekeeping amendments, Oregon Administrative Rules Chapter 340, Divisions 13, 14, and 20 through 34.

<u>Background</u>

This rule adoption package contains a proposal by the Department of Environmental Quality (Department) concerning rule amendments regarding housekeeping changes to the air quality regulations. This proposal would clean up the air quality regulations to the extent of correcting citations, removing outdated requirements, reconciling seemingly inconsistent requirements, and removing passed compliance dates.

On October 22, 1992, the Director authorized the Air Quality Division to proceed to a rulemaking hearing on the proposed rules which would make numerous housekeeping changes to the Department's air quality rules.

Pursuant to the authorization, hearing notice was published in the Secretary of State's <u>Bulletin</u> on November 1, 1992. Notice was mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action on October 21, 1992.

A Public Hearing was held November 24, 1992 with Andy Ginsburg serving as Presiding Officer. The Presiding Officer's Report (Attachment C) indicates that no oral testimony was presented at the hearing.

Written comment was received through November 25, 1992. The one comment received is included in Attachment D.

Department staff have evaluated the comment received (Attachment E). Based upon that evaluation, modifications to the initial rulemaking proposal are being recommended by the Department. These modifications are summarized below and detailed in Attachment F.

The following sections summarize the issue that this proposed rulemaking action is intended to address, the authority to address the issue, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Issue This Proposed Rulemaking Action is Intended to Address

This proposed rulemaking action is intended to address housekeeping issues in the air quality rules. These include incorrect citations and references, grammatical and typographical mistakes, unclear applicability, unnecessary and expired references and dates, and rule numbering issues. The rulemaking is not intended to address substantive issues.

Authority to Address the Issue

Oregon Revised Statutes 183.545 through 183.555 and 468.020.

<u>Process for Development of the Rulemaking Proposal (including alternatives</u> <u>considered)</u>

The package of proposed amendments was developed as an offshoot of the Department's Periodic Rule Review process described in a separate informational item for this EQC meeting. Rule Review included both a public review and an internal review of the Department's rules.

The housekeeping issues raised during the Rule Review have been compiled into this package of rules. While they are predominantly issues raised by staff, one housekeeping issue was raised during the public comment period for the Rule Review. Because of the housekeeping nature of these amendments, no advisory committees or task forces were formed or consulted.

One alternative considered by the Air Quality Division was to incorporate these housekeeping amendments into substantive rulemaking as rules are otherwise amended.

This alternative was rejected because of the large number of housekeeping amendments necessary throughout the air quality regulations.

<u>Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of</u> <u>Significant Issues Involved.</u>

The most common housekeeping changes are the correction of citations. These changes were necessary because Legislative Counsel reorganized Oregon Revised Statute (ORS) Chapter 468 into three chapters. Previously, Chapter 468 established the Department's administrative authority, and the air and water programs. In 1991, Chapter 468 was divided into a new Chapter 468 containing the Department's general administrative authority, Chapter 468 containing Oregon's air quality laws, and Chapter 468B containing Oregon's water quality laws. All references to the ORS were checked and updated where necessary.

Other housekeeping changes include correcting grammatical and typographical mistakes; correcting references within and to other rules; in divisions with several subdivisions, clarifying the range of rules covered by a subdivision; removing unnecessary references and dates; and deleting rules where compliance dates had passed.

One housekeeping change results from a public comment received from Northwest Aluminum Company during the Rule Review process covered in an separate informational item for this EQC meeting. The change involves a 28-day litmus test contained in OAR 340-25-285(1)(a). Northwest Aluminum pointed out that the test is technologically outdated and repetitive considering other testing requirements contained in the rules. The Department agrees that this testing requirement provides the same information as other existing testing requirements and is technologically outdated. Therefore, deleting it has no substantive effect.

Because of the housekeeping nature of the proposal, there are no significant issues involved.

Summary of Significant Public Comment and Changes Proposed in Response

Only one comment was received from the public regarding this package of rules (see Attachment D). The commenter indicated that four of the proposed housekeeping changes were in fact substantive in nature. This raises the issue of the adequacy of the public notice for making such changes.

Staff agrees that two of the changes are in fact substantive (one increasing stringency of open burning rules and the other relaxing vehicle inspection rules). Staff recommends removing these two changes from the housekeeping amendments and proposing them at a later date as part of other substantive rule making. Staff believes that all other changes are housekeeping and non-substantive as explained in Attachment E.

Staff is also proposing a few additional housekeeping changes identified during the public comment period. These changes include revising the note identifying air quality regulations which are part of the State Implementation Plan; adding the city of Brookings to the list of cities which have open burning restrictions under OAR 340-23-055; correcting typographical errors in 340-24-320(6) and (7); and renumbering the rules in Divisions 28 and 29 and placing them in Division 30. These changes are more fully explained in Attachment F.

One other difference between the proposal presented for public hearing and the proposal in Attachment A is that the current package contains new rules adopted since the public notice. This includes the Oxygenated Fuel rules (OAR 340-22-440 through 340-22-640, and 340-20-136), amendments to the New Source Rules (340-20-220 through 340-20-276), and the Emission Statement regulations (340-20-450 through 340-20-480). These regulations were not part of the periodic rule review process. With one minor exception which required renumbering definitions, no housekeeping changes to these rules are proposed at this time.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

Housekeeping amendments have no administrative, legal or economic affect. The goal of these amendments is to streamline agency rules, remove outdated requirements and compliance dates and generally make the rules more understandable.

The proposed amendments will be filed with the Secretary of State's office upon adoption. Otherwise, as these are housekeeping amendments, there are no new substantive requirements to be implemented.

Recommendation for Commission Action

It is recommended that the Commission adopt the amendments regarding housekeeping changes to air quality rules as presented in Attachment A of the Department Staff Report for Agenda Item J. For rules which are currently part of the State Implementation Plan

(as identified by a footnote to that effect under each applicable rule), the amendments are adopted as revisions to the State of Oregon Clean Air Act Implementation Plan under OAR 340-20-047.

<u>Attachments</u>

- A. Rule (Amendments) Proposed for Adoption
- B. Supporting Procedural Documentation:
 - Public Notice
 - Rulemaking Statements (Statement of Need)
 - Fiscal and Economic Impact Statement
 - Land Use Evaluation Statement
- C. Presiding Officer's Report on Public Hearing
- D. Written Comment Received
- E. Department's Evaluation of Public Comment
- F. Changes to Original Rulemaking Proposal Made in Response to Public Comment

Approved:

Section:

Division:

Report Prepared By:

Y: Yone C. McNally and Andrew D. Ginsburg

Phone: 229-5143/229-5581

Date Prepared: January 6, 1993

YCM/ADG eqcadopt.rep January 6, 1993

ATTACHMENT A OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISIONS 13, 14 AND 20 THROUGH 34

Copies of Attachment A are available by request.

DIVISION 13

WILDERNESS, RECREATIONAL, AND SCENIC AREA RULES

Environmental Standards for Wilderness Areas

Statement of Policy

340-13-005 Wilderness areas represent a natural resource of unique importance. Congress has protected such areas by enacting the Wilderness Act, P.L. 88-577, 16 U.S.C. Sec. 1131, et seq. Those wilderness areas located within the geographical limits of the state are a major part of the cultural heritage of the citizens of Oregon and are a key element in developing and maintaining tourism and recreation as a viable industry. Thus, the environment of wilderness areas is deserving of the highest level of protection and safeguarding by the state in order to preserve Oregon's unique primitive and natural land areas. The Wilderness Act allows certain activities in wilderness areas. Most of these have minimal present impact on the environment. However, mining and some other activities allowed by the Wilderness Act pose a serious threat of a substantial harm to the unique environment of wilderness areas.

Therefore, it is declared to be the policy and purpose of the Department of Environmental Quality to maintain the environment of wilderness areas essentially in a pristine state and as free from air, water, and noise pollution as is practically possible and to permit its alteration only in a manner compatible with recreational use and the enjoyment of the scenic beauty and splendor of these lands by the citizens of Oregon and of the United States.

Stat. Auth.: ORS Ch. <u>468 and 468A</u> Hist.: DEQ 35, f. 2-15-72, ef. 3-1-72

Definitions

340-13-010 As used in [these rules, unless otherwise required by context]this Division:

- (1) "Commission" means the Environmental Quality Commission.
- (2) "Department" means the Department of Environmental Quality.
- (3) "Opacity" means the degree to which emissions reduce the transmission of light or obscure the view of an object in the background.
- "Wilderness Area" means an area designated as wilderness by the Congress of the United States pursuant to Public Law 88-577, 16 U.S.C., Sec. 1131, et seq.

(5) "Person" means the federal government, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatsoever.

Stat. Auth.: ORS Ch. <u>468 and 468A</u> Hist.: DEQ 35 f. 2-15-72, ef. 3-1-72

Emission Permit Requirements

340-13-015 After the effective date of these rules:]

- (1) No person shall commence or initiate any activity other than emergency or recreational in a wilderness area which causes the emission of air contaminants, water pollutants or noise in excess of the standards set forth in[-rule] OAR 340-13-020[section](1)[-of these rules] without first applying for and receiving a permit from the Department.
- (2) The permit shall be in addition to and not in lieu of other permit requirements of federal, state or local governments.
- (3) Application for the permit shall be made on forms supplied by the Department. The application shall be made no less than 90 days prior to the proposed date of commencing the activity.
- (4) An application for a permit may be considered at a public hearing before the Commission or its authorized representative. At least 20 days' notice of the hearing shall be provided to the applicant and to any other interested person who has requested notice.
- (5) The Commission shall consider the testimony, data and views presented at the public hearing and either approve or disapprove a permit for the proposed activity according to its evaluation of whether the air, water and noise emissions from the activity are consistent with the policy and environmental standards as set forth in[rules] OAR 340-13-005 and 340-13-020.
- (6) Any permit issued for an activity within a wilderness shall be properly conditioned to achieve the policy objectives and environmental standards of <u>rules</u> OAR 340-13-005 and 340-13-020 and may be modified by the Department after a hearing before the Commission or its authorized representative.

Stat. Auth.: ORS Ch. <u>468 and 468A</u> Hist.: DEQ 35, f. 2-15-72, ef. 3-1-72

Environmental Standards 340-13-020

- (1) Except as provided in section (2) of this rule, no person engaged in an activity other than emergency or recreational within a wilderness area shall:
 - (a) Cause, suffer, allow, or permit any emission of air contaminants greater than 5 percent opacity.
 - (b) Discharge any waste into waters or conduct any activity which causes or is likely to cause:
 - (A) Any measurable increase in color, turbidity, temperature, or bacterial contamination;
 - (B) Any measurable decrease in dissolved oxygen;
 - (C) Any change in hydrogen ion concentration (pH); or
 - (D) Any toxic effect on natural biota.
 - (c) Cause, suffer, allow or permit the emission of noise from any source or sources which noise causes the maximum ambient sound pressure level to exceed 50 dbA at any point at least 50 feet from any source.
- (2) Subject to the permit requirements in rule 340-13-015, the Department may permit the emission of air contaminants greater than 5 percent opacity, but not to exceed 10 percent opacity and noise from any source or sources causing the maximum ambient sound pressure level to exceed 50 dbA at any point at least 50 feet from any source, but not to exceed 75 dbA at such distance.

Stat. Auth.: ORS Ch. <u>468 and 468A</u> Hist.: DEQ 35, f. 2-15-72, ef. 3-1-72

Penalties

340-13-025 In addition to and not in lieu of any other judicial redress, a person violating[these rules] this Division shall be subject to criminal prosecution as provided by Oregon Law.

Stat. Auth.: ORS Ch. <u>468 and 468A</u> Hist.: DEQ 35, f. 2-15-72, ef. 3-1-72

National Emergency

340-13-030 The Governor of Oregon may suspend[these rules] the requirements in this Division for the duration of any national emergency.

Stat. Auth.: ORS Ch. <u>468 and 468A</u> Hist.: DEQ 35, f. 2-15-72, ef. 3-1-72

New Wilderness Areas

340-13-035 [These rules]This Division shall not apply to any wilderness area established after January 1, 1972, by the United States until a public hearing on the possible application of[<u>these] this Division</u> or other rules thereto shall have first been held by the Commission.

Stat. Auth.: ORS Ch. <u>468 and 468A</u> Hist.: DEQ 35, f. 2-15-72, ef. 3-1-72

DIVISION 14

PROCEDURES FOR ISSUANCE, DENIAL, MODIFICATION, AND REVOCATION OF PERMITS

Purpose

340-14-005 The purpose of { these regulations} this Division is to prescribe uniform procedures for obtaining permits from the Department of Environmental Quality as prescribed by Oregon Revised Statutes (ORS) { 449.083; Chapter 406, Oregon Laws 1971; and Chapter 648, Oregon Laws 1971] 459.205, 468A.045 and 468B.050.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459, 468, 468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72

Exceptions

340-14-007 The procedures prescribed in this Division do not apply to the issuance, denial, modification and revocation of the following permits: National Pollutant Discharge Elimination System (NPDES) permits issued pursuant to the Federal Water Pollution Control Act Amendments of 1972 and acts amendatory thereof or supplemental thereto, as prescribed [-in] by OAR [340-45-005 through 340-45-065]Chapter 340, Division 45; Resource Conservation and Recovery Act (RCRA) permits as prescribed by OAR Chapter 340, Division 106; and the Underground Storage Tank (UST) permits as prescribed by OAR[-340-150-010 through 340-150-067] Chapter 340, Division 150.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459,</u> 468, <u>468A & 468B</u> Hist.: DEQ 53(Temp), f. & ef. 6-21-73; DEQ 58, f. 9-21-73, ef. 10-15-73; DEQ 13-1988, f. & cert. ef. 6-17-88

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 14 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Definitions

340-14-010 As used in[these regulations unless otherwise required by context] this Division:

- (1) "Department" means Department of Environmental Quality. Department actions shall be taken by the Director as defined herein.
- (2) "Commission" means Environmental Quality Commission.
- (3) "Director" means Director of the Department of Environmental Quality or the Director's authorized deputies or officers.
- (4) "Permit" means a written permit issued by the Department, bearing the signature of the Director, which by its conditions may authorize the permittee to construct, install, modify or operate specified facilities, conduct specified activities or emit, discharge or dispose of wastes in accordance with specified limitations.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459,</u> 468, <u>468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72; DEQ 13-1988, f. & cert. ef. 6-17-88

Type, Duration, and Termination of Permits 340-14-015

- (1) Permits issued by the Department will specify those activities, operations, emissions and discharges which are permitted as well as the requirements, limitations and conditions which must be met.
- (2) The duration of permits will be variable, but shall not exceed ten (10) years, except for permits issued to "confined animal feeding operations" pursuant to ORS <u>[468.740 as amended by House Bill 3445]468B.050</u>. Those permits shall not expire, but may be revoked or modified by the director or may be terminated upon request by the permit holder. The expiration date will be recorded on each permit issued. A new application must be filed with the Department to obtain renewal or modification of a permit.
- (3) Permits are issued to the official applicant of record for the activities, operations, emissions or discharges of record and shall be automatically terminated:

 (a) Within 60 days after sale or exchange of the activity or facility which requires a permit;

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 14 - DEPARTMENT OF ENVIRONMENTAL QUALITY

- (b) Upon change in the nature of activities, operations, emissions or discharges from those of record in the last application;
- (c) Upon issuance of a new, renewal or modified permit for the same operation;
- (d) Upon written request of the permittee.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459,</u> 468[.020], 468A & 468B Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72; DEQ 125, f. & ef. 12-16-76; DEQ 21-1990, f. & cert. ef. 7-6-90

Application for a Permit

340-14-020

- (1) Any person wishing to obtain a new, modified, or renewal permit from the Department shall submit a written application on a form provided by the Department. Applications must be submitted at least 60 days before a permit is needed. All application forms must be completed in full, signed by the applicant or the applicant's legally authorized representative, and accompanied by the specified number of copies of all required exhibits. The name of the applicant must be the legal name of the owner of the facilities or the owner's agent or the lessee responsible for the operation and maintenance.
- (2) Applications which are obviously incomplete, unsigned, or which do not contain the required exhibits (clearly identified) will not be accepted by the Department for filing and will be returned to the applicant for completion.
- (3) Applications which appear complete will be accepted by the Department for filing.
- (4) Within 15 days after filing, the Department will preliminarily review the application to determine the adequacy of the information submitted:
 - (a) If the Department determines that additional information is needed it will promptly request the needed information from the applicant. The application will not be considered complete for processing until the requested information is received. The application will be considered to be withdrawn if the applicant fails to submit the requested information within 90 days of the request;

- (b) If, in the opinion of the Director, additional measures are necessary to gather facts regarding the application, the Director will notify the applicant that said measures will be instituted, and the timetable and procedures to be followed. The application will not be considered complete for processing until the necessary additional fact-finding measures are completed. When the information in the application is deemed adequate, the applicant will be notified that this application is complete for processing.
- (5) In the event the Department is unable to complete action on an application within 45 days of closing of public comment or closing of the hearing record under OAR 340-14-025(2) and (3), the applicant shall be deemed to have received a temporary or conditional permit, such permit to expire upon final action by the Department to grant or deny the original application. Such temporary or conditional permit does not authorize any construction, activity, operation or discharge which will violate any of the laws, rules, or regulations of the State of Oregon or the Department of Environmental Quality.
- (6) If, upon review of an application, the Department determines that a permit is not required, the Department shall notify the applicant in writing of this determination. Such notification shall constitute final action by the Department on the application.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459,</u> 468<u>, 468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72; DEQ 13-1988, f. & cert. ef. 6-17-88

Issuance of a Permit

340-14-025

(1) Following determination that it is complete for processing, each application will be reviewed on its own merits. Recommendations will be developed in accordance with the provisions of all applicable statutes, rules and regulations of the State of Oregon and the Department of Environmental Quality.

- (2) If the Department proposes to issue a permit, public notice o[r]f proposed provisions prepared by the Department will be forwarded for comment to the applicant and persons required to be notified pursuant to ORS Chapter 183. The Department may also notify other interested persons at the discretion of the Department[for comment]. All comments must be submitted in writing[14] within 30 calendar days from the commencement of the public notice period if such comments are to receive consideration prior to final action on the application.
- (3) If, within 14 days after commencement of the public notice period, the Department receives written requests from ten (10) persons, or from an organization or organizations representing at least ten persons, for a public hearing to allow interested persons to appear and submit oral or written comments on the proposed provisions, the Department shall provide such a hearing before taking final action on the application, at a reasonable place and time and on reasonable notice. Notice of such a hearing may be given, in the Department's discretion, either in the notice accompanying the proposed provisions or in such other manner as is reasonably calculated to inform interested persons.
- (4)The Department shall take final action on the permit application within 45 days of the closing of public comment under section (2) of this rule, or, if a public hearing is held under section (3) of this rule, within 45 days of closing of such hearing's record. Regarding solid waste disposal permits under ORS 459.245, consideration of such public comment or record shall constitute good cause for extension of time to act on such applications. The Department may adopt or modify the proposed provisions or recommend denial of a permit. In taking such action, the Department shall consider the comments received regarding the proposed provisions and any other information obtained which may be pertinent to the application being considered. (5) The Department shall promptly notify the applicant in writing of the final action taken on an application. If the Department recommends denial, notification shall be in accordance with the provisions of OAR 340-14-035. If the conditions of the permit issued are different from the proposed provisions forwarded to the applicant for review, the notification shall include the reasons for the changes

made. A copy of the permit issued shall be attached to the

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notification.

(6) If the applicant is dissatisfied with the conditions or limitations of any permit issued by the Department, the applicant may request a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director within 20 days of the date of mailing of the notification of issuance of the permit. Any hearing held shall be conducted pursuant tof the regulations of the Department<u>]</u> OAR Chapter 340, Division 11.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459,</u> 468<u>, 468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72; DEQ 13-1988, f. & cert. ef. 6-17-88

Renewal of a Permit

340-14-030 The procedure for issuance of a permit shall apply to renewal of a permit. If a completed application for renewal of a permit is filed with the Department in a timely manner prior to the expiration date of the permit, the permit shall not be deemed to expire until final action has been taken on the renewal application to issue or deny a permit.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459, 468, 468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72

Denial of a Permit

340-14-035 If the Department proposes to deny issuance of a permit, it shall notify the applicant by registered or certified mail of the intent to deny and the reasons for denial. The denial shall become effective 20 days from the date of mailing of such notice unless within that time the applicant requests a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the regulations of the Department] OAR Chapter 340, Division 11.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459, 468, 468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72

Modification of a Permit

340-14-040 In the event that it becomes necessary for the Department to institute modification of a permit due to changing conditions or standards, receipt of additional information or any other reason pursuant to applicable statutes, the Department shall notify the permittee by registered or certified mail of its intent to modify the permit. Such notification shall include the proposed modification and the reasons for modification. The modification shall become effective 20 days from the date of mailing of such notice unless within that time the permittee requests a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the regulations of the Department] OAR Chapter 340, Division 11. A copy of the modified permit shall be forwarded to the permittee as soon as the modification becomes effective. The existing permit shall remain in effect until the modified permit is issued.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459, 468, 468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72

Suspension or Revocation of a Permit 340-14-045

(1) In the event that it becomes necessary for the Department to suspend or revoke a permit due to non-compliance with the terms of the permit, unapproved changes in operation, false information submitted in the application or any other cause, the Department shall notify the permittee by registered mail of its intent to suspend or revoke the permit. Such notification shall include the reasons for the suspension or revocation. The suspension or revocation shall become effective 20 days from the date of mailing of

such notice unless within that time the permittee requests a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to{ the regulations of the Department} OAR Chapter 340, Division 11.

(2) If the Department finds that there is a serious danger to the public health or safety or that irreparable damage to a resource will occur, it may, pursuant to applicable statutes, suspend or revoke a permit effective immediately. Notice suspension or revocation must state the reasons for such action and advise the permittee that he may request a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director within 90 days of the date of suspension and shall state the grounds for the request. Any hearing shall be conducted pursuant to[the regulations of the Department] OAR Chapter 340, Division 11.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459, 468, 468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72

Special Permits

340-14-050 The Department may waive the procedures prescribed in OAR 340-14-025 and issue special permits of duration not to exceed 60 days from the date of issuance for unexpected or emergency activities, operations, emission or discharges. Said permits shall be properly conditioned to insure adequate protection of property and preservation of public health, welfare and resources. Application for such permits shall be in writing and may be in the form of a letter which fully describes the emergency and the proposed activities, operations, emissions or discharges.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>459, 468, 468A & 468B</u> Hist.: DEQ 42, f. 4-5-72, ef. 4-15-72

AIR POLLUTION CONTROL DIVISION 20 GENERAL

Highest and Best Practicable Treatment and Control Required

340-20-001 Notwithstanding the general and specific emission standards and regulations contained in this Division, the highest and best practicable treatment and control of air contaminant emissions shall in every case be provided so as to maintain overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling and other deleterious factors at the lowest possible levels. In the case of new sources of air contamination, particularly those located in areas with existing high air quality, the degree of treatment and control provided shall be such that degradation of existing air quality is minimized to the greatest extent possible.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Exceptions

340-20-003 Except as provided in <u>[ORS 468.450]468A.020 and</u> <u>this rule, [the provisions of these rules]OAR Chapter 340,</u> <u>Divisions 20 through 34</u> do not apply to:

- Agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, except for field burning regulated pursuant to OAR Chapter 340, Division 26.
- (2) Use of equipment in agricultural operations in the growth of crops or the raising of fowls or animals, except for <u>field burning regulated pursuant to OAR Chapter 340,</u> <u>Division 26.</u>
- (3) **[Barbeque]Barbecue** equipment used in connection with any residence.
- (4) Agricultural land clearing operations or land grading.
- (5) Heating equipment in or used in connection with residences used exclusively as dwellings for not more than four families, except woodstoves regulated pursuant to OAR Chapter 340, Division 34.
- (6) Fires set or permitted by any public officer, board, council or commission when such fire is set or permission given in the performance of such duty of the officer for

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the purpose of weed abatement, the prevention or elimination of a fire hazard, or the instruction of employees in the methods of fire fighting, which is in the opinion of such officer necessary, or from fires set pursuant to permit for the purpose of instruction of employees of private industrial concerns in methods of fire fighting, or for civil defense instruction.

(7) The propagation and raising of nursery stock, except boilers used in connection with the propagation and raising of nursery stock.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70; DEQ 37, f. 2-15-72, ef. 3-1-72

Registration

Registration in General

340-20-005 (The text of this rule is changed in its entirety) <u>Any air contaminant source not subject to the Air</u> <u>Contaminant Discharge Permit rules, OAR 340-20-140 through 340-</u> <u>20-185, shall register with the Department upon request pursuant</u> to OAR 340-20-005 through 340-20-015.[The following air contaminant sources, not under the jurisdiction of a regional air pollution control authority, shall register with the Department no later than March 1, 1971, and annually thereafter as required by this rule:

(1) Aluminum reduction plants.

(2) Hot mix asphalt plants.

(3) Rendering plants.

(4) Kraft and sulfite-pulp mills.

(5) Installations operating wigwam waste burners.

(6) Plywood, particle board, and fiberboard plant sites.

- (7) Open burning refuse disposal sites receiving more than 500 tons/year of refuse.
- (8) Thermal-electric power generating plants.

(9) Other contaminant sources shall register with the Department when so requested.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

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OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70

Registration Requirements

340-20-010

- (1) Registration shall be completed within 30 days following the mailing date of the request by the Department.
- (2) Registration shall be made on forms furnished by the Department and completed by the owner, lessee of the source, or agent.
- (3) The following information shall be reported by registrants:
 - (a) Name, address, and nature of business;
 - (b) Name of local person responsible for compliance with these rules;
 - (c) Name of person authorized to receive requests for data and information;
 - (d) A description of the production processes and a related flow chart;
 - (e) A plot plan showing the location and height of all air contaminant sources. The plot plan shall also indicate the nearest residential or commercial property;
 - (f) Type and quantity of fuels used;
 - (g) Amount, nature, and duration of air contaminant emissions;
 - (h) Estimated efficiency of air pollution control equipment under present or anticipated operating conditions;
 - (i) [Amount and method of refuse disposal]Any other information requested by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70

Re-registration

340-20-015

- (1) Once a year upon the annual date of registration, a person responsible for an air contaminant source shall reaffirm in writing the correctness and current status of the information furnished to the Department.
- (2) Any change in any of the factual data reported under OAR 340-20-010(3) shall be reported to the Department, at which

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time re-registration may be required on forms furnished by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70

Notice of Construction and Approval of Plans

Requirement

340-20-020 No person shall construct, install, or establish a new source of air contaminant emission of any class listed in OAR 340-20-025(1) and not under the jurisdiction of a regional air quality control authority without first notifying the Department in writing.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70

Scope

340-20-025

- (1) This regulation shall apply to the following classes of sources of air contaminant emission:
 - (a) Air pollution control equipment;
 - (b) Fuel burning equipment rated at 400,000 BTU per hour or greater;
 - (c) Refuse burning equipment rated at 50 pounds per hour or greater;
 - (d) Open burning operations;
 - (e) Process equipment having emission to the atmosphere;
 - (f) Such other sources as the Department may determine to be potentially significant sources of air contamination.
- (2) New construction, installation or establishment includes:
 - (a) Addition to or enlargement or replacement of an air contamination source;

(b) A major alteration or modification of an air contamination source that may significantly affect the emission of air contamination.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70; DEQ 37, f. 2-15-72, ef. 3-1-72

Procedure

340-20-030

- (1) Notice of Construction. Any person intending to construct, install, or establish a new source of air contaminant emissions of a class listed in OAR 340-20-025(1) shall notify the Department in writing on a form supplied by the Department.
- (2) Submission of Plans and Specifications. The Department may within 30 days of receipt of a Notice of Construction require the submission of plans and specifications for air pollution control equipment and facilities and their relationship to the production process. The following information may also be required:
 - (a) Name, address, and nature of business;
 - (b) Name of local person responsible for compliance with these rules;
 - (c) Name of person authorized to receive requests for data and information;
 - (d) A description of the production processes and a related flow chart;
 - (e) A plot plan showing the location and height of all air contaminant sources. The plot plan shall also indicate the nearest residential or commercial property;
 - (f) Type and quantity of fuels used;
 - (g) Amount, nature and duration of air contaminant emissions;
 - (h) Estimated efficiency of air pollution control equipment under present or anticipated operating conditions;
 - (i) Amount and method of refuse disposal;
 - (j) The Department may require corrections and revisions to the plans and specifications to insure compliance with applicable rules, orders and statutes.

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- (3) Notice of Approval:
 - (a) The Department shall upon determining that the proposed construction is in the opinion of the Department in accordance with the provisions of applicable rules, order, and statutes, notify the person concerned that construction may proceed;
 - (b) A Notice of Approval to proceed with construction shall not relieve the owner of the obligation of complying with applicable emission standards and orders.
- (4) Order Prohibiting Construction:
 - (a) If within 60 days of receipt of the items set forth in section (2) of this rule the Director determines that the proposed construction is not in accordance with applicable statutes, rules, regulations and orders, the Director shall issue an order prohibiting the construction, installation or establishment of the air contamination source. Said order is to be forwarded to the owner by certified mail;
 - (b) Failure to issue such order within the time prescribed herein shall be considered a determination that the proposed construction, installation, or establishment may proceed, provided that it is in accordance with plans, specifications, and any corrections or revisions thereto, or other information, if any, previously submitted, and provided further that it shall not relieve the owner of the obligation of complying with applicable emission standards and orders.
- (5) Hearing. Pursuant to law, a person against whom an order prohibiting construction is directed may within 20 days from the date of mailing of the order, demand a hearing. The demand shall be in writing, state the grounds for hearing, and be mailed to the Director of the Department of Environmental Quality. The hearing shall be conducted pursuant to the applicable provisions of ORS Chapter 183.
- (6) Notice of Completion. Within thirty (30) days after any person has constructed an air contamination source as defined under OAR 340-20-010(1), he shall so report in writing on a form furnished by the Department, stating the date of completion of construction and the date the source was or will be put in operation.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70; DEQ 5-1989, f. 4-24-89 & cert. ef. 5-1-89

Compliance Schedules

340-20-032

- (1) The Department shall attempt to encourage voluntary cooperation of all persons responsible for an air contamination source, as defined by ORS 468[.275]A.005(4). To facilitate this cooperation and provide for a progressive program of air pollution control, the Department may negotiate with such persons a schedule of compliance. The schedule will set forth the dates and terms and conditions by which the person responsible for an air contamination source shall comply with applicable air quality rules or statutes:
 - (a) The schedule may be in lieu of a hearing and shall be in writing and signed by the Director of the Department or his designated officer and an authorized agent of the person responsible for the air contamination source. After the schedule is executed by both parties, it shall be confirmed by order of the Department;
 - (b) Compliance schedules providing for final compliance at a date later than 18 months from the date of execution shall contain requirements for periodic reporting and increments of progress toward compliance, at intervals of less than 18 months;
 - (c) No compliance schedule shall allow emissions on a permanent basis in excess of applicable standards and rules.
- (2) In the event a negotiated schedule of compliance cannot be established, the Department may set a show cause hearing as provided by ORS 468.090 at a date and time designated as to why an order implementing a schedule proposed by the Department should not be adopted, or take such other authorized action as may be warranted.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

340-20-033.02 [Renumbered to 340-20-140]

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340-20-033.04 [Renumbered to 340-20-145]

340-20-033.06 [Renumbered to 340-20-150]

340-20-033.08 [Renumbered to 340-20-155]

340-20-033.10 [Renumbered to 340-20-160]

340-20-033.12 [Renumbered to 340-20-165]

340-20-033.14 [Renumbered to 340-20-170]

340-20-033.16 [Renumbered to 340-20-175]

340-20-033.18 [Renumbered to 340-20-185]

Sampling, Testing and Measurement of Air Contaminant Emissions

Program

340-20-035 As part of its coordinated program of air quality control and preventing and abating air pollution, the Department of Environmental Quality may:

- (1) Require any person responsible for emissions of air contaminants to make or have made tests to determine the type, quantity, quality, and duration of the emissions from any air contamination source.
- (2) Require full reporting of all test procedures and results furnished to the Department in writing and signed by the person or persons responsible for conducting the tests.
- (3) Require <u>[continual]continuous</u> monitoring of specified air contaminant emissions and periodic regular reporting of the results of such monitoring.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70

- Stack Heights and Dispersion Techniques 340-20-037
- (1) Title 40, Code of Federal Regulations, Parts [51.1(ff) thru (kk), 51.12(j) and (k), and 51.18(l), as amended on July 8, 1985 in the Federal Register (50 FR 27892)]51.100(ff)

through 51.100(kk), 51.118, 51.160 through 51.166, as published on July 1, 1991, is by this reference adopted and incorporated herein, concerning stack heights and dispersion techniques.

- (2) In general, the rule prohibits the use of excessive stack height and certain dispersion techniques when calculating compliance with ambient air quality standards. The rule does not forbid the construction and actual use of excessively tall stacks, nor use of dispersion techniques; it only forbids their use in calculations as noted above.
- (3) The rule has the following general applicability. With respect to the use of excessive stack height, stacks 65 meters high or greater, constructed after December 31, 1970, and major modifications to existing plants after December 31, 1970 with stacks 65 meters high or greater which were constructed before that date, are subject to this rule, with the exception that certain stacks at federally-owned, coal-fired steam electric generating units constructed under a contract awarded before February 8, 1974, are exempt. With respect to the use of dispersion techniques, any technique implemented after December 31, 1970, at any plant is subject to this rule. However, if the plant's total allowable emissions of sulfur dioxide are less than 5,000 tons per year, then certain dispersion techniques to increase final exhaust gas plume rise are permitted to be used when calculating compliance with ambient air quality standards for sulfur dioxide:
 - (a) Where found in the federal rule, the term "reviewing agency" means the Department of Environmental Quality (DEQ), Lane Regional Air Pollution Authority (LRAPA), or the U.S. Environmental Protection Agency (EPA), as applicable;
 - (b) Where found in the federal rule, the term "authority administering the State Implementation Plan" means DEQ, LRAPA, or EPA;
 - (c) The "procedures" referred to in 40 CFR 51.18(1) are the New Source Review procedures at DEQ (OAR 340-20-220 to 340-20-276) or at LRAPA (Title 38), and the review procedures for new, or modifications to, minor sources, at DEQ (OAR 340-20-020 to 340-20-030, 340-20-140 to 340-20-185) or at LRAPA (Title 34 and OAR 38-045);
 - (f4]d) Where "the state" or "state, or local control agency" is referred to in 40 CFR 51.12(j), it means DEQ or LRAPA;

- (e) Where 40 CFR 51.1(kk) refers to the prevention of significant deterioration program and cites 40 CFR 51.24, it means the EPA-approved new source review rules of DEQ or LRAPA (see 40 CFR 52.1987), where they cover prevention of significant deterioration;
- (f) Where found in the federal rule, the terms "applicable state implementation plan" and "plan" refer to the programs and rules of DEQ or LRAPA, as approved by EPA, or any EPA-promulgated regulations (see 40 CFR Part 52, Subpart MM).

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 11-1986, f. & ef. 5-12-86

Methods

340-20-040

- (1) Any sampling, testing, or measurement performed under this regulation shall conform to methods for file at the Department of Environmental Quality]contained in the Department of Environmental Quality's Source Sampling Manual or to recognized applicable standard methods approved in advance by the Department.
- (2) The Department may approve any alternative method of sampling provided it finds that the proposed method is satisfactory and complies with the intent of these regulations and is at least equivalent to the uniform recognized procedures in objectivity and reliability, and is demonstrated to be reproducible, selective, sensitive, accurate and applicable to the program.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-11-70

Department Testing

340-20-045 The Department, instead of requesting tests and sampling of emissions from the person responsible for an air contamination source, may conduct such tests alone or in conjunction with said person. If the testing or sampling is performed by the Department, a copy of the results shall be provided to the person responsible for the air contamination source.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 15, f. 6-12-70, ef. 9-1-70

Records; Maintaining and Reporting 340-20-046

- (1) Upon notification from the Director of the Department of Environmental Quality, all persons owning or operating a stationary air contaminant source within the state shall commence to keep and maintain written records of the nature, type and amounts of emissions from such source and other information as may be required by the Director to determine whether such is in compliance with applicable emission rules, limitations or other control measures.
- (2) The records shall be prepared in the form of a report and submitted to the Department of Environmental Quality on a semi-annual basis commencing with the first full semi-annual period after the Director's notification to such persons owning or operating a stationary air contaminant source of these record-keeping requirements. Except as may be otherwise provided by rule, semi-annual periods are January 1[,] to June 30, July 1[, and] to December 31.
- (3) The reports required by this rule shall be completed on forms approved by the Department of Environmental Quality and shall be submitted within 30 days after the end of each reporting period.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

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Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 44(Temp), f. & ef. 5-5-72; DEQ 48, f. 9-20-72, ef. 10-1-72

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

"State of Oregon Clean Air Act[,] Implementation Plan"

340-20-047 This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by the Department of Environmental Quality and is adopted as the implementation plan of the State of Oregon pursuant to the Federal Clean Air Act, as amended.

[NOTE: Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the the United States Environmental Protection Agency. If any provision of the federally approved Implementation Plan conflicts with any provision adopted by the Commission, the Department shall enforce the more stringent provision.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468[.305] & 468A

Hist.: DEQ 35, f. 2-3-72, ef. 2-15-72; DEQ 54, f. 6-21-73, ef. 7-1-73; DEQ 19-1979, f. & ef. 6-25-79; DEQ 21-1979, f. & ef. 7-2-79; DEQ 22-1980, f. & ef. 9-26-80; DEQ 11-1981, f. & ef. 3-26-81; DEQ 14-1982, f. & ef. 7-21-82; DEQ 21-1982, f. & ef. 10-27-82; DEQ 1-1983, f. & ef. 1-21-83; DEQ 6-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 25-1984, f. & ef. 11-27-84; DEQ 3-1985, f. & ef. 2-1-85; DEQ 12-1985, f. & ef. 9-30-85; DEQ 5-1986, f. & ef. 2-21-86; DEQ 10-1986, f. & ef. 5-9-86; DEQ 20-1986, f. & ef. 11-7-86; DEQ 21-1986, f. & ef. 11-7-86; DEQ 4-1987, f. & ef. 3-2-87; DEQ 5-1987, f. & ef. 3-2-87; DEQ 8-1987, f. & ef. 4-23-87; DEQ 21-1987, f. & ef. 12-16-87; DEQ 31-1988, f. 12-20-88, cert. ef. 12-23-88; DEQ 2-1991, f. & cert. ef. 2-14-91; DEQ 19-1991, f. & cert. ef. 11-13-91; DEQ 20-1991, f. & cert. ef. 11-13-91; DEQ 21-1991, f. & cert. ef. 11-13-91; DEQ 22-1991, f. & cert. ef. 11-13-1991; DEQ 23-1991, f. & cert. ef. 11-13-91; DEQ 24-1991, f. & cert. ef. 11-13-91; DEQ 25-1991, f. & cert. ef. 11-13-91; AQ 14, f. & ef. 1-30-92; DEQ 1-1992, f. & cert. ef. 2-4-92; DEQ 3-1992, f. & cert. ef. 2-4-92; DEQ 7-1992, f. & cert.

OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY ef. 3-30-92; AQ 20-1992, f. & cert. ef. 8-3-92; AQ 21, f. 10-30-92, ef. 11-1-92; AQ 22, f. & ef. 11-2-92; AQ 23, f. & ef. 11-12-92 Definitions 340-20-050 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 81, f. 12-5-74, ef. 12-25-74] Statement of Policy 340-20-055 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 81, f. 12-5-74, ef. 12-25-74] Applicability 340-20-060 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 81, f. 12-5-74, ef. 12-25-74] Requirements 340-20-065 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 81, f.12-5-74, ef. 12-25-74] **Public Hearing** 340-20-070 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 81, f. 12-5-74, ef. 12-25-74] Rules for Indirect Sources

Policy

340-20-100 The Commission finds and declares Indirect Sources to be air contamination sources as defined in ORS [468.275]468A.005. The Commission further finds and declares that the regulation of Indirect Sources is necessary to control the concentration of air contaminants which result from Motor Vehicle Trips and/or Aircraft Operations associated with the use of Indirect Sources.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 110(Temp), f. & ef. 3-17-76; DEQ 118, f. & ef. 8-11-76

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Jurisdiction and Delegation

340-20-105 The Commission finds that the complexity or magnitude of Indirect Sources requires state-wide regulation and assumes or retains jurisdiction thereof. The Commission may, however, when any Regional Authority requests and provides evidence demonstrating its capability to carry out the provisions of these rules relating to Indirect Sources, authorize and confer jurisdiction upon such Regional Authority to perform all or any of such provisions within its boundary until such authority and jurisdiction shall be withdrawn for cause by the Commission.

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 110(Temp), f. & ef. 3-17-76; DEQ 118, f.& ef. 8-11-76

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Definitions

340-20-110

As used in OAR 340-20-100 through 340-20-135:

- (1) "Air Quality Maintenance Area (AQMA)" means any area that has been identified by the Department having the potential for exceeding any State ambient air quality standard.
- (2) "Air Quality Maintenance Area (AQMA) Analysis" means an analysis of the impact on air quality in an AQMA of emissions from existing air contaminant sources and emissions associated with projected growth and development.
- (3) "Aircraft Operations" means any aircraft landing or takeoff.
- (4) "Airport" means any area of land or water which is used or intended for use for the landing and takeoff of aircraft, or any appurtenant areas, facilities, or rights-of-way such as terminal facilities, parking lots, roadways, and aircraft maintenance and repair facilities.
- (5) "Associated Parking" means a parking facility or facilities owned, operated, and/or used in conjunction with an Indirect Source.
- (6) "Average Daily Traffic" means the total traffic volume during a given time period in whole days greater than one day and less than one year divided by the number of days in that time period, commonly abbreviated as ADT.

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- (7) "Commence Construction" means to begin to engage in a continuous program of on-site construction or on-site modifications, including site clearance, grading, dredging, or landfilling in preparation for the fabrication, erection, installation, or modification of an Indirect Source. Interruptions and delays resulting from acts of God, strikes, litigation, or other matters beyond the control of the owner shall be disregarded in determining whether a construction or modification program is continuous.
- (8) "Commission" means Environmental Quality Commission.
- (9) "Department" means the Department of Environmental Quality.
 (10) "Director" means the Director of the Department or Regional Authority and authorized deputies or officers.
- (11) "Expressway" means a divided arterial highway for through traffic with full or partial control of access and generally with grade separations at major intersections.
- (12) "Freeway" means an Expressway as defined in section (9) of this rule with full control of access.
- (13) "Highway Section" means a highway of substantial length between logical termini (major crossroads, population centers, major traffic generators, or similar major highway control elements) as normally included in a single location study or multi-year highway improvement program.
- (14) "Indirect Source" means a facility, building, structure, or installation, or any portion or combination thereof, which indirectly causes or may cause mobile source activity that results in emissions of an air contaminant for which there is a State standard. Such Indirect Sources shall include, but not be limited to:
 - (a) Highways and Roads;
 - (b) Parking Facilities;
 - (c) Retail, Commercial, and Industrial Facilities;
 - (d) Recreation, Amusement, Sports, and Entertainment Facilities;
 - (e) Airports;
 - (f) Office and Government Buildings;
 - (g) Apartments and Mobile Home Parks;
 - (h) Educational Facilities;
 - (i) Hospital Facilities;
 - (j) Religious Facilities.
- (15) "Indirect Source Construction Permit" means a written permit in letter form issued by the Department or Regional Authority having jurisdiction, bearing the signature of the Director, which authorizes the permittee to commence construction of an Indirect Source under construction and operation conditions and schedules as specified in the permit.

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- (16) "Indirect Source Emission Control Program (ISECP)" means a program which reduces Mobile Source emissions resulting from the use of the Indirect Source. An ISECP may include, but is not limited to:
 - (a) Posting transit route and scheduling information;
 - (b) Construction and maintenance of bus shelters and turn-out lanes;
 - (c) Maintaining mass transit fare reimbursement programs;
 - (d) Making a car pool matching system available to employees, shoppers, students, residents, etc.;
 - (e) Reserving parking spaces for car pools;
 - (f) Making parking spaces available for park-and-ride stations;
 - (g) Minimizing vehicle running time within parking lots through the use of sound parking lot design;
 - (h) Ensuring adequate gate capacity by providing for the proper number and location of entrances and exits and optimum signalization for such;
 - (i) Limiting traffic volume so as not to exceed the carrying capacity of roadways;
 - (j) Altering the level of service at controlled intersections;
 - (k) Obtaining a written statement of intent from the appropriate public agency(s) on the disposition of roadway improvements, modifications, and/or additional transit facilities to serve the individual source;
 - (1) Construction and maintenance of exclusive transit ways;
 - (m) Providing for the collection of air quality monitoring data at Reasonable Receptor and Exposure Sites;
 - (n) Limiting facility modifications which can take place without resubmission of permit application.

(17) "Indirect Source Operating Permit" means a written permit in letter form issued by the Department or Regional Authority having jurisdiction, bearing the signature of the Director or designee, which authorizes the permittee to operate an indirect source.

- [(17)](18) "Mobile Source" means self-propelled vehicles, powered by internal combustion engines including, but not limited to, automobiles, trucks, motorcycles, and aircraft.
- [(18)](19) "Off-street Area or Space" means any area or space not located on a public road dedicated for public use.

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- [(19)](20) "Parking and Traffic Circulation Plan" means a plan developed by a city, county, or regional government or Regional Planning Agency, the implementation of which assures the attainment and maintenance of the state's ambient air quality standards.
- (20) (21) "Parking Facility" means any building, structure, lot, or portion thereof, designed and used primarily for the temporary storage of motor vehicles in designated parking spaces.
- [(21)](22) "Parking Space" means any Off-Street Area of Space below, above, or at ground level, open or enclosed, that is used for parking one motor vehicle at a time.
- [(22)](23) "Person" means individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the State and any agencies thereof, and the federal government and any agencies thereof.
- [(23)](24) "Population" means that population estimate most recently published by the Center for Population Research and Census, Portland State University, or any other population estimate approved by the Department.
- [(24)](25) "Regional Authority" means a regional air quality control authority established under the provisions of ORS [468.505]468A.105.
- [(25)](26)
 "Regional Planning Agency" means any planning agency
 which has been recognized as a substate-clearinghouse
 for the purposes of conducting project review under the
 United States Office of Management and Budget Circular
 Number A-95, or other governmental agency having
 planning authority.
- [(26)](27) "Reasonable Receptor and Exposure Sites" means locations where people might reasonably be expected to be exposed to air contaminants generated in whole or in part by the Indirect Source in question. Location of ambient air sampling sites and methods of sample collection shall conform to criteria on file with the Department of Environmental Quality.
- [(27)](28) "Sensitive Area" means locations which are actual or potential air quality non-attainment areas, as determined by the Department.
- [(28)](29) "Vehicle Trip" means a single movement by a motor vehicle which originates or terminates at or uses an Indirect Source.

[(29) "Indirect Source Operating Permit" means a written permit in letter form issued by the Department or Regional Authority having jurisdiction, bearing the signature of the Director or designee, which authorizes the permittee to operate an indirect source.]

Stat. Auth.: ORS Ch. 468[.065(2)] & 468A Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 86, f. 3-11-75, ef. 4-11-75; DEQ 110(Temp), f. & ef. 3-1-76 thru 7-14-76; DEQ 118, f. & ef. 8-11-76; DEQ 17-1990, f. & cert. ef. 5-25-90; AQ 22, f. 10-30-92, ef. 11-1-92

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Indirect Sources Required to Have Indirect Source Construction Permits

340-20-115

- (1) The owner, operator, or developer of an Indirect Source identified in section (2) of this rule shall not commence construction of such a source after December 31, 1974, without an approved Indirect Source Construction Permit issued by the Department or Regional Authority having jurisdiction.
- (2) All Indirect Sources meeting the criteria of this section relative to type, location, size, and operation are required to apply for an Indirect Source Construction Permit:
 - (a) The following sources in or within five (5) miles of the municipal boundaries of a municipality with a population of 50,000 or more including, but not limited to, Portland, Salem, and Eugene:
 - (A) Any Parking Facility or other Indirect Source with Associated Parking being constructed or modified to create new or additional parking[(] or Associated Parking[]], capacity of 250 or more Parking Spaces, except within the municipal boundary of Portland where the minimum number of Parking Spaces associated with an Indirect Source requiring Department approval shall be 150;
 - (B) Any Highway Section being proposed for construction with an anticipated annual average daily traffic volume of 20,000 or more motor vehicles per day within ten years after completion, or being modified so that the annual

Average Daily Traffic on that Highway Section will be 20,000 or more motor vehicles per day or will be increased by 10,000 or more vehicles per day within ten years after completion.

- following The sources within the State Implementation Plan Medford Carbon Monoxide nonattainment area boundary defined as "Beginning at the intersection of Crater Lake Highway (Highway 62) south on Biddle Road to the intersection of Fourth Street, west on Fourth Street to Riverside Avenue (Highway 99), south on Riverside Avenue to Tenth Street, west on Tenth Street to the intersection with Oakdale Avenue, north on Oakdale Avenue to the intersection with Fourth Street, east on Fourth Street to Central Avenue, north on Central Avenue to Court Street, north on Court Street to intersection with the Crater Lake Highway (Highway 62) and east on Crater Lake Highway to the point of beginning, with extensions along McAndrews Road east from Biddle Road to Crater Lake Avenue, and along Jackson Street east from Biddle Road to Crater Lake Avenue";
- (B) Any Parking Facility or other Indirect Source with Associated Parking being constructed or modified to create new or additional parking {(]or Associated Parking{)}, capacity of 250 of more parking spaces.
- (c) Except as otherwise provided in this rule, the following sources within Clackamas, Lane, Marion, Multnomah, or Washington Counties and the municipal boundary of Medford: Any Parking Facility or other Indirect Source with Associated Parking being constructed or modified to create new or additional parking [(]or Associated Parking[)], capacity of 500 or more Parking Spaces;
- (d) The following sources within Clackamas, Jackson, Lane, Marion, Multnomah, or Washington Counties: Any Highway Section being proposed for construction with an anticipated annual Average Daily Traffic volume of 20,000 or more motor vehicles per day within ten years after completion, or being modified so that the annual Average Daily Traffic on that Highway Section will be 20,000 or more motor vehicles per day, or will be increased by 10,000 or more motor vehicles per day within ten years after completion;

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(b) (A)

- (e) Except as otherwise provided in this rule, the following sources in all areas of the state:
 - (A) Any Parking Facility or other Indirect Source with Associated Parking being constructed or modified to create new or additional parking [(]or Associated Parking[)], capacity of 1,000 or more parking spaces;
 - (B) Any Highway Section being proposed for construction with an anticipated annual Average Daily Traffic Volume of 50,000 or more motor vehicles per day within ten years after completion, or being modified so that the annual Average Daily Traffic on that Highway Section will be 50,000 or more motor vehicles per day, or will be increased by 25,000 or more motor vehicles per day, within ten years after completion.
- (f) Any Airport being proposed for construction with projected annual aircraft operations of 50,000 or more within ten years after completion, or being modified in any way so as to increase the projected number of annual Aircraft operations by 25,000 or more within 10 years after completion.
- (3) Where an Indirect Source is constructed or modified in increments which individually are not subject to review under this rule, and which are not part of a program of construction or modification in planned incremental phases approved by the Director, all such increments commenced after January 1, 1975, shall be added together for determining the applicability of this rule.
- (4) An Indirect Source Construction Permit may authorize more than one phase of construction where commencement of construction or modification of successive phases will begin over acceptable periods of time referred to in the permit; and thereafter construction or modification of each phase may be begun without the necessity of obtaining another permit.
- (5) Persons applying for an Indirect Source Permit shall at the time of application pay the following fees:
 - (a) Filing Fee of \$100[(required of all applicants)];
 - (b) Basic Application Processing Fee of \$500[(required of all applicants)];
 - (c) Extended Analysis Processing Fee of \$2,000 [(]required of applicants with parking facilities of 1,000 or greater spaces or for those facilities locating in "sensitive areas" which are not part of an approved parking and circulation plan[)].

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Stat. Auth.: ORS Ch. 468 [.065(2)] & 468A

Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 86, f. 3-11-75, ef. 4-11-75; DEQ 110(Temp), f. & ef. 3-1-76 thru 7-14-76; DEQ 118, f. & ef. 8-11-76; DEQ 6-1984(Temp), f. & ef. 4-17-84; DEQ 19-1984, f. & ef. 10-16-84; DEQ 17-1990, f. & cert. ef. 5-25-90

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Establishment of an Approved Parking and Traffic Circulation Plan(s) by a City, County, or Regional Government or Regional Planning Agency

340-20-120

(1)

- Upon determination by the Department or Regional (a) Authority that control of Parking Spaces and traffic circulation is necessary to ensure attainment and maintenance of State and National Ambient Air Quality (S/NAAQS), Standards the Department or Regional Authority shall notify the Commission of the geographic areas determined or projected to be in noncompliance. The basis for the Department's determination shall be findings and conclusions of an Air the Quality Maintenance Area (AQMA) Analysis, or similar air quality study. Upon submission of its findings to the Commission, the Department shall give notice to cities, counties, regional governmental unit, or Regional Agencies located Planning in geographic areas determined or projected to be in noncompliance with S/NAAQS, that a public hearing shall be held on the Department's findings related to the need to control Parking Spaces and Traffic Circulation. After reviewing the public hearing testimony and the Department's findings, the Commission shall determine if it is in concurrence with the Department's findings. Upon the Commission's concurrence of the Department's findings, the Department or Regional Authority shall so notify the city, county, regional government unit, or Regional Planning Agency of the geographic areas determined or projected to be in noncompliance;
 - (b) Within one-hundred twenty (120) days of receipt of such notification, the appropriate city, county, regional, or other local government unit or planning agency shall proceed, in accordance with a specific plan and time schedule agreed to by the appropriate governmental unit or planning agency and the Department to develop and

implement a Parking and Traffic Circulation Plan. The Parking and Traffic Circulation Plan, where required, shall be developed in coordination with the local and regional comprehensive planning process pursuant to the requirements of ORS 197.005 et. seq. The required plan shall be submitted to the Department or Regional Authority for approval within the agreed time schedule but shall not be more than three (3) years after the appropriate city, county or regional government or Regional Planning Agency is notified of the necessity for a Parking and Traffic Circulation Plan for an area within its jurisdiction.

- Within sixty (60) days of the notification that development (2) and submittal of Parking and Traffic Circulation Plans are required under section (1) of this rule, each designated city, county or regional government or Regional Planning Agency shall notify the Department or Regional Authority in . writing the agency or department and individual responsible for coordination and development of Parking and Traffic Circulation Plans.
- The Department or Regional Authority having jurisdiction will (3) include in its notification:
 - (a) The geographic area requiring the development of Parking and Traffic Circulation Plans;
 - (b) The time period over which the Plan shall attain and maintain S/NAAQS; and
 - The air contaminants for which the plan is to be (C) developed.
- (4) The Parking and Traffic Circulation Plan shall include, but not be limited to:
 - (a) Legally identifiable plan boundaries;
 - (b) Total Parking Space capacity allocated to the plan area, where applicable;
 - (C) Measures as necessary to provide for the attainment and maintenance of S/NAAQS for the air contaminants for which the Parking and Traffic Circulation Plan area was identified;
 - (d) Duly enforceable rules, regulations, and ordinances that implement measures that provide for attainment and maintenance of S/NAAQS for a period to be specified by the Department or Regional Authority;
 - A description of the air quality levels expected as a (e) result of the implementation of the Parking and Traffic Circulation Plan;
 - (f) Other applicable information which would allow evaluation of the plan such as, but not limited to,

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scheduling of construction, emission factors, and criteria, guidelines, and zoning ordinances applicable to the plan area;

- (g) A description of the administrative procedures to be used in implementing each control measure included in the Parking and Traffic Circulation Plan;
- (h) A description of the enforcement methods used to ensure compliance with measures adopted as part of the Parking and Traffic Circulation Plan;
- (i) Identification and responsibilities of each city, county, and regional government or Regional Planning Agency designated under sections (1) or (10) of this rule to implement the Parking and Traffic Circulation Plan.
- (5) The Department or Regional Authority having jurisdiction shall hold a public hearing on each Parking and Traffic Circulation Plan submitted and on each proposed revocation or substantial modification thereof, allowing at least thirty (30) days for written comments from public and other interested agencies.
- (6) Upon approval of a submitted Parking and Traffic Circulation Plan, the Plan shall be identified as the approved Parking and Traffic Circulation Plan, the appropriate governmental unit or planning agency shall be notified and the plan used for the purposes and implementation of this rule.
- (7) The appropriate city, county, or regional government or Regional Planning Agency shall annually review an approved Parking and Traffic Circulation Plan to determine if the plan continues to be adequate for the maintenance of air quality in the plan area and shall report its conclusions to the Department or Regional Authority having jurisdiction.
- (8) The Department or Regional Authority having jurisdiction shall initiate a review of an approved Parking and Traffic Circulation Plan if it is determined that the Parking and Traffic Circulation Plan is not adequately maintaining the air quality in the plan area.
- (9) A city, county, or regional government or Regional Planning Agency may submit a Parking and Traffic Circulation Plan to the Department or Regional Authority having jurisdiction for approval without being required to do so as stated in section (1) of this rule.
- (10) The City of Medford shall develop and implement a Parking and Traffic Circulation Plan. The Parking and Traffic Circulation Plan, where required, shall be developed in coordination with the local and regional comprehensive planning process pursuant to the requirements of ORS 197.005 et. seq. The

required plan shall be submitted to the Department for approval by August 25, 1984.

(11) Within thirty (30) days of the notification that development and submittal of a Parking and Traffic Circulation Plan is required under section (10) of this rule, the City of Medford shall notify the Department in writing the agency or department and individual responsible for coordination and development of the Parking and Traffic Circulation Plan. The provisions of sections (3) - (9) of this rule shall be applicable.

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 110(Temp), f. & ef. 3-1-76 thru 7-14-76; DEQ 118, f. & ef. 8-11-76; DEQ 6-1984(Temp), f. & ef. 4-17-84; DEQ 19-1984, f. & ef. 10-16-84

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Information and Requirements Applicable to Indirect Source(s) Construction Permit Applications Where an Approved Parking and Traffic Circulation Plan is on File

- 340-20-125
- (1) Application Information Requirements:
 - (a) Parking Facilities and Indirect Sources Other Than Highway Sections:
 - (A) A completed application form;
 - (B) A map showing the location of the site;
 - A description of the proposed and prior use of the site;
 - (D) A site plan showing the location and quantity of Parking Spaces at the Indirect Source and Associated Parking area, points of motor vehicle ingress and egress to and from the site and Associated Parking;
 - (E) A ventilation plan for subsurface and enclosed parking;
 - (F) A written statement from the appropriate planning agency that the Indirect Source in question is consistent with an approved Parking and Traffic Circulation Plan or any adopted transportation plan for the region;

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- (G) A reasonable estimate of the effect the project has on total parking approved for any specific grid area and Parking and Traffic Circulation Plan area.
- (b) Highway Section(s):
 - (A) Items (A) through (C) of subsection (1)(a);
 - (B) A written statement from the appropriate governmental unit or planning agency that the Indirect Source in question is consistent with an approved Parking and Traffic Circulation Plan and any adopted transportation plan for the region;
 - (C) A reasonable estimate of the effect the project has on total vehicle miles traveled within the Parking and Traffic Circulation Plan Area.
- (2) Within 15 days after the receipt of an application for a permit or additions thereto, the Department or Regional Authority having jurisdiction shall advise the owner or operator of the Indirect Source of any additional information required as a condition precedent to issuance of a permit.
- (3) An application shall not be considered complete until the required information is received by the Department or Regional Authority having jurisdiction.

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 86, f. 3-11-75, ef. 4-11-75; DEQ 110(Temp), f. & ef. 3-1-76 thru 7-14-76; DEQ 118, f. & ef. 8-11-76

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Information and Requirements Applicable to Indirect Source(s) Construction Permit Application Where No Approved Parking and Traffic Circulation Plan is on File 340-20-129

- (1) For all Indirect Sources for which an Indirect Source Construction Permit is required, other than Highway Sections and Airports, a completed Short Form Application shall be submitted containing the following information:
 - (a) A map showing the location of the site;
 - (b) A description of the proposed and prior use of the site;

- (c) A site plan showing the location and quantity of Parking Spaces at the Indirect Source and Associated Parking area, point of motor vehicle ingress and egress to and from the site and Associated Parking;
- (d) A ventilation plan for subsurface and enclosed parking;
- (e) An estimate of the annual average and annual maximum daily vehicle trips detailed in the highest one and eight hour periods of the day, generated by the movement of mobile sources to and from the Parking Facility and/or Associated Parking Facility for the first and fifth years after completion of each planned incremental phase of the Indirect Source;
- (f) A description of the availability and type of mass transit presently serving or projected to serve the proposed Indirect Source. This description shall only include mass transit operating within 1/4 mile of the boundary of the Indirect Source;

(g)

- Within 15 days after the receipt (A) of an application for an Indirect Source Construction Permit or any addition thereto, the Department {(]or Regional Authority having jurisdiction{)} shall mail or deliver to the applicant a written demand for any additional information which the Department [(]or Regional Authority having jurisdiction [)] requires as condition a precedent to making a final determination to issue or deny a permit;
 - (B) An application shall not be considered complete until all the required information is received by the Department [(]or Regional Authority having jurisdiction[]]. If no timely written demand is made for additional information, then the application shall be considered complete;
 - (C) Such additional information may be required when there is reasonable basis for concluding:
 - (i) That the Indirect Source may cause or contribute to a violation of the Clean Air Act Implementation Plan for Oregon; or
 - (ii) That the Indirect Source may cause or contribute to a delay in the attainment of or a violation of any applicable ambient air quality standard after December 31, 1982; or
 - (iii) That the information is necessary to determine whether the proposed Indirect

Source may cause or contribute to any such delay or violation. The Department shall base such conclusion upon any reliable information, including ambient air monitoring, traffic volume, traffic speed, and air quality projections based thereon, or on any other reliable information.

- (D) The additional information that may be required as a condition precedent to issuance of a permit may include any of that information required to be submitted in a Long Form Application by section (2) of this rule.
- (2) For Indirect Sources, other than Highway Sections and Airports, proposed to be constructed or modified to create new or additional parking capacity of 1000 or more parking spaces in or within five miles of the municipal boundaries of Portland, Salem, Eugene, or Medford, the following Long Form Application information shall be submitted:
 - (a) All the information required by the Short Form Application by subsection (1)(a) through (g) of this rule;
 - (b) An estimate of the Average Daily Traffic, peak hour and peak eight hour traffic volumes for all roads, streets, and arterials within 1/4 mile of the Indirect Source and for all freeways and expressways within 1/2 mile of the nearest boundary of the Indirect Source for the time periods as stated in subsection (1)(e) of this rule and as exist at the time of application;
 - (c) An estimate of the gross emissions of carbon monoxide, lead, reactive hydrocarbons, and oxides of nitrogen based on the analysis performed in subsections (1)(e) and (2)(b) of this rule;
 - (d) Measured and estimated carbon monoxide and lead concentrations at Reasonable Receptor and Exposure Measurements shall prior Sites. be made to construction. Estimates shall be made for the first, fifth, and tenth years after the Indirect Source and Associated Parking are completed or fully operational. Such estimates shall be made for the average and peak operating conditions;
 - (e) Evidence of the compatibility of the Indirect Source with any adopted transportation plan for the area;
 - (f) An estimate of the additional residential, commercial, and industrial developments which may occur concurrent with or as the result of, the construction and use of

the Indirect Source. This shall also include an air quality impact assessment of such development pursuant to subsection (2)(d) of this rule; A description of the Indirect Source Emission Control (g) Program if such a program is necessary in order to be compliance with requirements of OAR in the 340-20-130(5)(a), (b) and (c). For Airports, the following information shall be submitted: Paragraphs (A) through (E) of OAR 340-20-125(1)(a); (a) OAR 340-20-125(2) and (3) shall be applicable; (b) A map showing the topography of the area surrounding (C) and including the site; Evidence of the compatibility of the Airport with any (d) adopted Transportation Plan for the area; An estimate of the effect of the operation of the (e) Airport on the total vehicle miles traveled; (f) Estimates of the effect of the operation and use of the Airport on traffic patterns, volumes, and flow in, on, or within 1/4 mile of the Airport; An estimate of the average and maximum number of (g) Aircraft Operations per day by type of aircraft in the first, fifth, and tenth years after completion of the Airport; (h) Expected passenger loadings in the first, fifth, and tenth years after completion; (i) Measured or estimated carbon monoxide and lead concentrations at Reasonable Receptor and Exposure sites. Measurements shall be made prior to construction and estimates shall be made for the first, fifth, and tenth years after the Airport and associated Parking are completed or fully operational. Such estimates shall be made for average and peak operating conditions; (j) Alternative designs of the Airport, i.e., size, location, parking capacity, etc., which would minimize the adverse environmental impact of the Airport; An estimate of the additional residential, commercial, (k) and industrial development which may occur within 3 miles of the boundary of the new or modified Airport as the result of the construction and use of the Airport;

(1) An estimate of the area-wide air quality impact analysis for carbon monoxide, photo-chemical oxidants, nitrogen oxides, and lead particulate. This analysis would be based on the emissions projected to be emitted from mobile and stationary sources within the Airport and from mobile and stationary source growth within 3

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(3)

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miles of the boundary of the Airport. Projections should be made for the first, fifth, and tenth years after completion;

- (m) A description of the availability and type or mass transit presently serving or projected to serve the proposed Airport. This description shall only include mass transit operating within 1/4 mile of the boundary of the Airport.
- (4) For Highway Sections, the following information shall be submitted:
 - Paragraph (A) through (C) of OAR 340-20-125(1)(a); (a)
 - (b) OAR 340-20-125(2) shall be applicable;
 - (C) A map showing the topography of the Highway Section and points of ingress and egress;
 - (d) The existing average and maximum daily traffic on the Highway Section proposed to be modified;
 - An estimate of the maximum traffic levels for one and (e) eight hour periods in the year in which the maximum air quality impact is projected and the first and last years the Highway Section is projected not to be in compliance with the requirements of OAR 340-20-130(5)(a), (b), and (c);
 - (f) An estimate of vehicle speeds for average and maximum traffic volumes for the year in which the maximum air quality impact is projected and the first and last years Highway Section is projected not to be in compliance with requirements the of OAR
 - 340-20-130(5)(a), (b), and (c); A description of the general features of the Highway (g) Section and associated right-of-way;
 - (h) An analysis of the impact of the Highway Section on the development of mass transit and other modes of transportation such as bicycling;
 - (i) Alternative designs of the Highway Section, i.e., size, location, etc. which would minimize adverse environmental effects of the Highway Section;
 - (j) The compatibility of the Highway Section with an adopted comprehensive transportation plan for the area;
 - An estimate of the additional residential, commercial, (k) and industrial development which may occur as the result of the construction and use of the Highway Section, including an air quality assessment of such development;

- Estimates of the effect of the operation and use of the Indirect Source on major shifts in traffic patterns, volumes, and flow in, on, or within 1/4 mile of the Highway Section;
- (m) An analysis of the area-wide air quality impact for carbon monoxide, photochemical oxidants, nitrogen oxides, and lead particulates for the year in which maximum air quality impact is projected and the first and last years the Highway Section is projected not to be in compliance with the requirements of OAR 340-20-130(5)(a), (b), and (c). This analysis would be based on the change in total vehicle miles traveled in the area selected for analysis;
- (n) The total air quality impact (carbon monoxide and lead) of maximum and average traffic volumes. This analysis would be based on the estimates of an appropriate diffusion model at Reasonable Receptor and Exposure Sites. Measurements shall be made prior to construction and estimates shall be made for the year in which maximum air quality impact is projected and the first and last years the Highway Section is projected not to be in compliance with the requirements of OAR 340-20-130(5) (a), (b), and (c);
- (o) Where applicable and requested by the Department, a Department approved surveillance plan for motor vehicle related air contaminants.

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 86, f. 3-11-75, ef. 4-11-75; DEQ 110(Temp), f. & ef. 3-1-76 thru 7-14-76; DEQ 118, f. & ef. 8-11-76; DEQ 19-1978, f. & ef. 12-4-78

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Issuance or Denial of Indirect Source Construction Permits 340-20-130

- (1) Issuance of an Indirect Source Construction Permit shall not relieve the permittee from compliance with other applicable provisions of the Clean Air Act Implementation Plan for Oregon.
- (2) Within 20 days after receipt of a complete permit application, the Department or Regional Authority having jurisdiction shall:

- Issue a 20 day notice and notify appropriate newspapers (a) and any interested person(s) who has requested to receive such notices in each region in which the proposed Indirect Source is to be constructed of the written public the opportunity for comment on information submitted by the theapplicant, Department's evaluation of the proposed project, the Department's proposed decision, and the Department's proposed construction permit where applicable;
- (b) Make publicly available in at least one location in each Department region in which the proposed Indirect Source would be constructed, the information submitted by the applicant, the Department's evaluation of the proposed project, the Department's proposed decision, and the Department's proposed construction permit where applicable.
- (3) Within 60 days of the receipt of a complete permit application, the Department or Regional Authority having jurisdiction shall act to either disapprove a permit application or approve it with possible conditions.
- (4) Conditions of an Indirect Source Construction Permit may include, but not be limited to:
 - (a) An Indirect Source Emission Control Program where it is necessary in order to be in compliance with the requirements of subsections (5) (a), (b), and (c) of this rule. The ISECP shall only contain control measures which have reasonably definable costs;
 - (b) Completion and submission of a Notice of Completion form prior to operation of the Indirect Source.
- (5) An Indirect Source Construction Permit may be denied if:
 - (a) The Indirect Source will cause or contribute to a violation of the <u>[Clear]Clean</u> Air Act Implementation Plan for Oregon;
 - (b) The Indirect Source will cause or contribute to a delay in the attainment of or cause or contribute to a violation of any State Ambient Air Quality Standard;
 - (c) The Indirect Source causes or contributes to any violation of any State Ambient Air Quality Standard by an other Indirect Source or system of Indirect Sources;
 - (d) The applicable requirements for an Indirect Source Construction Permit applications are not met.
- (6) Any owner or operator of an Indirect Source operating without a permit required by this rule, or operating in violation of any of the conditions of an issued permit shall be subject to civil penalties and injunctions.

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- (7) Nothing in this rule shall preclude a Regional Authority authorized under OAR 340-20-105 from setting the permit conditions for areas within its jurisdiction at levels more stringent than those detailed in OAR 340-20-100 through 340-20-135.
- (8) If the Department shall deny, revoke, or modify an Indirect Source Construction Permit, it shall issue an order setting forth its reasons in essential detail.
- (9) An Indirect Source Construction Permit shall be applied for at least 90 days in advance of the anticipated start of construction.

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 86, f. 3-11-75, ef. 4-11-75; DEQ 110(Temp), f. & ef. 3-1-76 thru 7-14-76; DEQ 118, f. & ef. 8-11-76

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Permit Duration

340-20-135

- (1) An Indirect Source Construction Permit issued by the Department or a Regional Authority having jurisdiction shall remain in effect until modified or revoked by the Department or such Regional Authority.
- (2) The Department or Regional Authority having jurisdiction may revoke the permit of any Indirect Source operating in violation of the construction, modification, or operation conditions set forth in this permit.
- (3) An approved permit may be conditioned to expire if construction or modification is not commenced within 18 months after receipt of the approved permit; and, in the case of a permit granted covering construction of modification in approved, planned incremental phases, a permit may be conditioned to expire as to any such phase as to which construction or modification is not commenced within 18 months of the time period stated in the initial permit for the commencing of construction of that phase. The Director may extend such time period upon a satisfactory showing by the permittee that an extension is justified.

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 86, f. 3-11-75, ef. 4-11-75; DEQ 110(Temp), f. & ef. 3-1-76 thru 7-14-76; DEQ 118, f. & ef. 8-11-76

Owners of Gasoline at Terminals, Distributors and Retail Outlets Required to Have Indirect Source Operating Permits

340-20-136 The owner of gasoline at any gasoline terminal, distributor or retail outlet (defined in OAR 340-22-450(29), (12), (26)) shall not supply gasoline to any oxygenated gasoline control area during the control period (defined in OAR 340-22-450(6) and (10)) without an approved Indirect Source Operating Permit issued by the Department or Regional Authority having jurisdiction.

(1) An Indirect Source Operating Permit must be renewed yearly, prior to supplying any gasoline to an oxygenated gasoline control area during the control period.

(2) Persons applying for an Indirect Source Operating Permit shall at the time of application pay the following fees:

- (a) Gasoline Terminals \$5,700;
- (b) Gasoline Distributors \$500;
- (c) Gasoline Retailers \$100.

Stat Auth.: ORS Ch. 468A Hist: AQ 21, f. 10-30-92, ef. 11-1-92

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Air Contaminant Discharge Permits

Purpose

340-20-140 The purpose of <u>[these rules]OAR 340-20-140 through</u> <u>340-20-185</u> is to prescribe the requirements and procedures for obtaining Air Contaminant Discharge Permits pursuant to ORS <u>[468.310 to 468.330]468A.040 through 468A.060</u> and related statutes for stationary sources.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-86; Renumbered from 340-20-033.02

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Definitions

340-20-145 As used in <a>[these rules, unless otherwise required] by context]OAR 340-20-140 through 340-20-185:

- (1) "Department" means Department of Environmental Quality.
- (2) "Commission" means Environmental Quality Commission.
- (3) "Person" means the United States Government and agencies thereof, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatever.
- "Permit" or "Air Contaminant Discharge Permit" means a (4) written permit issued by the Department or Regional Authority in accordance with duly adopted procedures, which by its conditions authorizes the permittee to construct, install, modify, or operate specified facilities, conduct specified discharge, activities, or emit, or dispose of air with contaminants in accordance specified practices, limitations, or prohibitions.
- (5) "Regional Authority" means Lane Regional Air Pollution Authority.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-76; Renumbered from 340-20-033.04

Notice Policy

340-20-150

- (1) It shall be the policy of the Department and the Regional Authority to issue public notice as to the intent to issue an Air Contaminant Discharge Permit allowing at least thirty (30) days for written comment from the public, and from interested State and Federal agencies, prior to issuance of the permit. Public notice shall include the name and quantities of new or increased emissions for which permit limits are proposed, or new or increased emissions which exceed significant emission rates established by the Department.
- (2) In addition to the information required under OAR 340-11-007, public notices for Air Contaminant Discharge Permits shall contain:

- (a) If a major source permit, whether the proposed permitted emission would have a significant impact on a Class 1 airshed;
- (b) Whether each proposed permitted emission is a criteria pollutant and whether the area in which the source is located is designated as attainment or nonattainment for that pollutant; and
- (c) For each major source within an attainment area for which dispersion modeling has been performed an indication of what impact each proposed permitted emission would have on the Prevention of Significant Deterioration Program within that attainment area.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183, 468 & 468A

Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-76; Renumbered from 340-20-033.06; DEQ 13-1988, f. & cert. ef. 6-17-88; DEQ 34-1990, f. 8-20-90, cert. ef. 9-1-90

Permit Required

340-20-155

- (1) No person shall construct, install, establish, develop or operate any air contaminant source which is referred to in Table 1, appended hereto and incorporated herein by reference, without first obtaining a permit from the Department or Regional Authority.
- (2) No person shall modify any source covered by a permit under [these rules]OAR 340-20-140 through 340-20-185 such that the emissions are significantly increased without first applying for and obtaining a modified permit.
- (3) No person shall modify any source covered by a permit under [these rules]OAR 340-20-140 through 340-20-185 such that:
 - (a) The process equipment is substantially changed or added to; or
 - (b) The emissions are significantly changed without first notifying the Department.
- (4) Any source may apply to the Department or Regional Authority for a special letter permit if operating a facility with no, or insignificant, air contaminant discharges. The determination of applicability of this special permit shall be made solely by the Department or Regional Authority having jurisdiction. If issued a special permit, the application

processing fee and/or annual compliance determination fee, provided by OAR 340-20-165, may be waived by the Department or Regional Authority.

- (5) The Department may designate any source as a "Minimal Source" based upon the following criteria:
 - (a) Quantity and quality of emissions;
 - (b) Type of operation;
 - (c) Compliance with Department regulations; and
 - (d) Minimal impact on the air quality of the surrounding region. If a source is designated as a minimal source, the annual compliance determination fee, provided by OAR 340-20-165, will be collected in conjunction with plant site compliance inspections which will occur no less frequently than every five (5) years.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-76; Renumbered from 340-20-033.08; DEQ 125, f. & ef. 12-16-76; DEQ 20-1979, f. & ef. 6-29-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 13-1981, f. 5-6-81, ef. 7-1-81; DEQ 11-1983, f. & ef. 5-31-83; DEQ 3-1986, f. & ef. 2-12-86; DEQ 12-1987, f. & ef. 6-15-87

Multiple-Source Permit

340-20-160 When a single site includes more than one air contaminant source, a single permit may be issued including all sources located at the site. For uniformity such applications shall separately identify by subsection each air contaminant source included from **Table 1**.

- (1) When a single air contaminant source which is included in a multiple-source permit, is subject to permit modification, revocation, suspension, or denial, such action by the Department or Regional Authority shall only affect that individual source without thereby affecting any other source subject to the permit.
- (2) When a multiple-source permit includes air contaminant sources subject to the jurisdiction of the Department and the Regional Authority, the Department may require that it shall be the permit issuing agency. In such cases, the Department and the Regional Authority shall otherwise maintain and exercise all other aspects of their respective jurisdictions over the permittee.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-76; Renumbered from 340-20-003.10

Fees

340-20-165

- (1) All persons required to obtain a permit shall be subject to a three part fee consisting of a uniform non-refundable filing fee of \$75, an application processing fee, and an annual compliance determination fee which are determined by applying **Table 1**. The amount equal to the filing fee, application processing fee, and the annual compliance determination fee shall be submitted as a required part of any application for a new permit. The amount equal to the filing fee and the application processing fee shall be submitted with any application for modification of a permit. The amount equal to the filing fee, application processing fee, and the annual compliance determination fee shall be submitted with any application for a renewed permit.
- (2) The fee schedule contained in the listing of air contaminant sources in **Table 1** shall be applied to determine the permit fees, on a Standard Industrial Classification (SIC) plant site basis.
- (3) Modifications of existing, unexpired permits which are instituted by the Department or Regional Authority due to changing conditions or standards, receipts or additional information, or any other reason pursuant to applicable statutes and do not require refiling or review of an application or plans and specifications shall not require submission of the filing fee or the application processing fee.
- (4) Applications for multiple-source permits received pursuant to OAR 340-20-160 shall be subject to a single \$75 filing fee. The application processing fee and annual compliance determination fee for multiple-source permits shall be equal to the total amounts required by the individual sources involved, as listed in Table 1.

- (5) The annual compliance determination fee shall be paid at least 30 days prior to the start of each subsequent permit year. Failure to timely remit the annual compliance determination fee in accordance with the above shall be considered grounds for not issuing a permit or revoking an existing permit.
- (6) If a permit is issued for a period less than one (1) year, the applicable annual compliance determination fee shall be equal to the full annual fee. If a permit is issued for a period greater than 12 months, the applicable annual compliance determination fee shall be prorated by multiplying the annual compliance determination fee by the number of months covered by the permit and dividing by twelve (12).
- (7) In no case shall a permit be issued for more than ten (10) years.
- (8) Upon accepting an application for filing, the filing fee shall be non-refundable.
- (9) When an air contaminant source which is in compliance with the rules of a permit issuing agency relocates or proposes to relocate its operation to a site in the jurisdiction of another permit issuing agency having comparable control requirements, application may be made and approval may be given for an exemption of the application processing fee. The permit application and the request for such fee reduction shall be accompanied by:
 - (a) A copy of the permit issued for the previous location; and
 - (b) Certification that the permittee proposes to operate with the same equipment, at the same production rate, and under similar conditions at the new or proposed location. Certification by the agency previously having jurisdiction that the source was operated in compliance with all rules and regulations will be acceptable should the previous permit not indicate such compliance.
- (10) If a temporary or conditional permit is issued in accordance with adopted procedures, fees submitted with the application for an air contaminant discharge permit shall be retained and be applicable to the regular permit when it is granted or denied.
- (11) All fees shall be made payable to the permit issuing agency.
- (12) Pursuant to ORS [468.535]468A.135, a regional authority may adopt fees in different amounts than set forth in Table 1 provided such fees are adopted by rule and after hearing and in accordance with ORS 468.065(2).

- (13) Sources which are temporarily not conducting permitted activities, for reasons other than regular maintenance or seasonal limitations, may apply for use of a modified annual compliance determination fee in lieu of an annual compliance determination fee determined by applying **Table 1**. A request for use of the modified annual compliance determination fee must be submitted to the Department in writing along with the modified annual compliance determination fees on or before the due date of the annual compliance determination fee on or before the due date of the annual compliance determination fee shall be \$250.
- (14) Sources which have received Department approval for payment of a modified annual compliance determination fee must obtain authorization from the Department prior to resuming permitted activities. Sources shall submit written notification to the Department at least thirty (30) days before startup specifying the earliest anticipated startup date, and accompanied by:
 - (a) Payment of the full annual compliance determination fee determined from Table 1 if greater than six (6) months would remain in the billing cycle for the source, or
 - (b) Payment of 50% of the annual compliance determination fee determined from Table 1 if six (6) months or less would remain in the billing cycle.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 [.065(2)] & 468A

Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-76; Renumbered from 340-20-033.12; DEQ 125, f. & ef. 12-16-76; DEQ 20-1979, f. & ef. 6-29-79; DEQ 11-1983, f. & ef. 5-31-83; DEQ 6-1986, f. & ef. 3-26-86; DEQ 12-1987, f. & ef. 6-15-87; DEQ 17-1990, f. & cert. ef. 5-25-90; AQ 4, f. & ef. 12-2-91

Procedures For Obtaining Permits

340-20-170 Submission and processing of

applications for permits and issuance, denial, modification, and revocation, of permits shall be in accordance with duly adopted procedures of the permit issuing agency.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; Renumbered from 340-20-033.14

Other Requirements

340-20-175

- (1) Any person intending to obtain an Air Contaminant Discharge Permit to construct, install, or establish a new or modified source of air contaminant emissions as required in OAR 340-20-155 shall submit a completed application on forms provided by the Department or at least the following information:
 - (a) Name, address, and nature of business;
 - (b) A description of the production processes and a related flow chart;
 - (c) A plot plan showing location of all air contaminant sources and the nearest residential or commercial property;
 - (d) Type and quantity of fuels used;
 - (e) Amount, nature, and duration of emissions;
 - (f) Estimated efficiency of air pollution control equipment.
- (2) Any person complying with section (1) of this rule shall be exempted from complying with the notice of construction requirements of OAR 340-20-020 and [340-20-030]340-20-032.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-76; Renumbered from 340-20-033.16; DEQ 20-1979, f. & ef. 6-29-79

Registration Exemption

340-20-180 Air contaminant sources constructed and operated under a permit issued pursuant to these regulations shall be exempted from registration as required by ORS [468.320]468A.050 and OAR 340-20-005, 340-20-010, and 340-20-015.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-76; Renumbered from 340-20-033.18; DEQ 20-1979, f. & ef. 6-29-79

Permit Program For Regional Air Pollution Authority

340-20-185 Subject to the provisions of this rule, the Commission authorizes the Regional Authority to issue, modify, renew, suspend, and revoke air contaminant discharge permits for air contamination sources within its jurisdiction.

- (1) Each permit proposed to be issued or modified by the Regional Authority shall be submitted to the Department at least thirty (30) days prior to the proposed issuance date.
- (2) A copy of each permit issued, modified, or revoked by the Regional Authority shall be promptly submitted to the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 47, f. 8-31-72, ef. 9-15-72; DEQ 63, f. 12-20-73, ef. 1-11-74; DEQ 107, f. & ef. 1-6-76; Renumbered from 340-20-033.20

Applicability in Nonattainment Areas

340-20-190 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Definitions: Rules 340-20-190 to 340-20-192

340-20-191 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Requirements - Nonattainment Areas

340-20-192 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Applicability in Attainment Areas 340-20-193 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81] Definitions - Rules 340-20-193 to 340-20-195 340-20-194 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81] Requirements 340-20-195 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81] Emission Limitations on a Plant Site Basis 340-20-196 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Definitions - Rules 340-20-196 to 340-20-198 340-20-197 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Limitation by Permit 340-20-198 [DEQ 16-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Conflicts of Interest

Purpose

340-20-200 The purpose of OAR 340-20-200 to 340-20-215 is to comply with the requirements of **Section 128 of the federal Clean Air Act as amended August, 1977 (Public Law 95-95)** (herein-after called "Clean Air Act"), regarding public interest representation by a majority of the members of the Commission and by the Director and disclosure by them of potential conflicts of interest.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 15-1978, f. & ef. 10-13-78

CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Definitions

340-20-205 As used in OAR 340-20-200 to 340-20-215, unless otherwise required by context:

- (1) "Disclose" means explain in detail in a signed written statement prepared at least annually and available for public inspection at the Office of the Director or the Oregon Ethics Commission.
- (2) "Commission" means the Oregon Environmental Quality Commission.
- (3) "Director" means the Director of the Oregon Department of Environmental Quality.
- (4) "Persons subject in Oregon to permits or enforcement orders under the Clean Air Act" includes any individual, corporation, partnership, or association who holds, is an applicant for, or is subject to any permit, or who is or may become subject to any enforcement order under the Clean Air Act, except that it does not include:
 - (a) An individual who is or may become subject to an enforcement order solely by reason of his or her ownership or operation of a motor vehicle; or
 - (b) Any department or agency of a state, local, or regional government.
- (5) "Potential conflict of interest" includes:
 - (a) Any significant portion of income from persons subject in Oregon to permits or enforcement orders under the Clean Air Act; and
 - (b) Any interest or relationship that would preclude the individual having the interest or relationship from being considered one who represents the public interest.
- (6) "Represent the public interest" means that, other than an insignificant portion of income, the individual has no special interest or relationship that would preclude objective and fair consideration and action by that individual in the best interest of the general public.
- (7) "Significant portion of income" means 10 percent or more of gross personal income for a calendar year, including retirement benefits, consultant fees, and stock dividends, except that it shall mean 50 percent or more of gross personal income for a calendar year if the recipient is over 60 years of age and is receiving such portion pursuant to retirement, pension, or similar arrangement. For purposes of this section, income derived from mutual-fund payments, or from other diversified investments as to which the recipient does not know the identity of the primary sources of income, shall be considered part of the recipient's gross personal

income but shall not be treated as income derived from persons subject to permits or enforcement orders under the Clean Air Act.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15-1978, f. & ef. 10-13-78

Public Interest Representation

340-20-210 At least a majority of the members of the Commission and the Director shall represent the public interest and shall not derive any significant portion of their respective incomes directly from persons subject in Oregon to permits or enforcement orders under the Clean Air Act.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15-1978, f. & ef. 10-13-78

Disclosure of Potential Conflicts of Interest

340-20-215 Each member of the Commission and the Director shall disclose any potential conflict of interest.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15-1978, f. & ef. 10-13-78

New Source Review

Applicability

340-20-220

(1) No owner or operator shall begin construction of a major source or a major modification of an air contaminant source without having received an Air Contaminant Discharge Permit from the Department of Environmental Quality and having satisfied OAR [340-20-230]340-20-220 through [340-20-280]340-20-276 of these rules.

(2)Owners or operators of proposed non-major sources or non-major modifications are not subject to these New Source Review rules. Such owners or operators are subject to other Department rules including Highest and Best Practicable Treatment and Control Required [(], OAR 340-20-001[)], Notice of Construction and Approval of Plans [[],OAR 340-20-032[)], 340-20-020ftolthrough Air Contaminant Permits[(]OAR Discharge 340-20-140 fto]through 340-20-185[)], Emission for Hazardous Standards Air Contaminants [(], OAR 340-25-450 [to] through [340-25-480)]340-25-485, and Standards of Performance for New Stationary Sources [(], OAR 340-25-505 [to]through 340-25-545[)].

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 25-1981, f. & ef. 9-8-81

Definitions

340-20-225

As used in OAR 340-20-220 through 340-20-276:

- (1) "Actual emissions" means the mass rate of emissions of a pollutant from an emissions source:
 - (a) In general, actual emissions as of the baseline period shall equal the average rate at which the source actually emitted the pollutant during the baseline period and which is representative of normal source operation. Actual emissions shall be calculated using the source's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period;
 - (b) The Department may presume that existing source-specific permitted mass emissions for the source are equivalent to the actual emissions of the source if they are within 10% of the calculated actual emissions;
 - (c) For any newly permitted emission source which had not yet begun normal operation in the baseline period, actual emissions shall equal the potential to emit of the source.
- "Baseline Concentration" means:

 (a) [t]The ambient concentration level for [sulfer]sulfur dioxide and total suspended particulate matter which existed in an area during the calendar year 1978. If no ambient air quality data is available in an area, the baseline

concentration may be estimated using modeling based on actual emissions for 1978. The following emission increases or decreases will be included in the baseline concentration:

- (A) Actual emission increases or decreases occurring before January 1, 1978; and
- (B) Actual emission increases from any major source or major modification on which construction commenced before January 6, 1975.
- (b) **[t]T**he ambient concentration level for nitrogen oxides which existed in an area during the calendar year 1988.
- (3) "Baseline Period" means either calendar years 1977 or 1978. The Department shall allow the use of a prior time period upon a determination that it is more representative of normal source operation.
- (4) "Best Available Control Technology (BACT)" means an emission limitation [(], including, but not limited to, a visible emission standard [)], based on the maximum degree of reduction of each air contaminant subject to regulation under the Clean Air Act which would be emitted from any proposed major source or major modification which, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such air contaminant. In no event, shall the application of BACT result in emissions of any air contaminant which would exceed the emissions allowed by any applicable new source performance standard or any standard for hazardous air pollutants. If an emission limitation is not feasible, a design, equipment, work practice, or operational standard, or combination thereof, may be required. Such standard shall, to the degree possible, set forth the emission reduction achievable and shall provide for compliance by prescribing appropriate permit conditions. "Class I area" means any Federal, State or Indian reservation (5) land which is classified or reclassified as Class I area. Class I areas are identified in OAR 340-31-120.
- (6) "Commence" means that the owner or operator has obtained all necessary preconstruction approvals required by the Clean Air Act and either has:
 - (a) Begun, or caused to begin, a continuous program of actual on-site construction of the source to be completed in a reasonable time; or

- binding (b) Entered into agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the source to be completed in a reasonable time.
- "Construction" means any physical change [(]including, but not limited to, fabrication, erection, installation, (7)demolition, or modification of an emissions unit [); or change in the method of operation of a source which would result in a change in actual emissions.
 - "Emission Limitation" and "Emission Standard" mean а requirement established by a State, local government, or the Administrator of the U.S. Environmental Protection Agency limits the quantity, rate, or concentration of which emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.
- "Emission Reduction Credit Banking" means to presently (9) reserve, subject to requirements of these provisions, emission reductions for use by the reserver or assignee for future compliance with air pollution reduction requirements.
- (10)"Emissions Unit" means any part of a stationary source f(], including, but not limited to, specific process equipment [)] which emits or would have the potential to emit any pollutant subject to regulation under the Clean Air Act.
- "Federal Land Manager" means with respect to any lands in the (11)United States, the Secretary of the federal department with authority over such lands.
- (12)"Fugitive Emissions" means emissions of any air contaminant which escape to the atmosphere from any point or area that is not identifiable as a stack, vent, duct, or equivalent opening.
- "Growth Increment" means an allocation of some part of an (13)airshed's capacity to accommodate future new major sources and major modifications of sources.
- "Lowest Achievable Emission Rate (LAER)" means that rate of (14)emissions which reflects: the most stringent emission limitation which is contained in the implementation plan of any state for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable; or the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent. In no event, shall the application of this term permit a

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(8)

proposed new or modified source to emit any air contaminant in excess of the amount allowable under applicable new source performance standards or standards for hazardous air pollutants.

- "Major Modification" means any physical change or change of (15)operation of a source that would result in a net significant increase [[]_as defined in [definition emission rate (25))]this rule, for any pollutant subject to regulation under the Clean Air Act. This criteria also applies to any pollutants not previously emitted by the source. Calculations of net emission increases must take into account all accumulated increases and decreases in actual emissions occurring at the source since January 1, 1978, or since the time of the last construction approval issued for the source pursuant to the New Source Review Regulations for that pollutant, whichever time is more recent. If accumulation of emission increases results in a net significant emission rate increase, the modification causing such increases become subject to the New Source Review requirements including the retrofit of required controls.
- (16) "Major Source" means a stationary source which emits, or has the potential to emit, any pollutant regulated under the Clean Air Act at a Significant Emission Rate[(],as defined [in definition (25))]in this rule.
- (17) "Nonattainment Area" means a geographical area of the State which exceeds any state or federal primary or secondary ambient air quality standard as designated by the Environmental Quality Commission or the Environmental Protection Agency.
- (18) "Offset" means an equivalent or greater emission reduction which is required prior to allowing an emission increase from a new major source or major modification of a source.
- (19) "Particulate Matter Emissions" means all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by applicable reference methods.
- (20) "PM₁₀ Emissions" means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers, emitted to the ambient air as measured by applicable reference methods.
- (21) "Plant Site Emission Limit" means the total mass emissions per unit time of an individual air pollutant specified in a permit for a source.
- (22) "Potential to Emit" means the maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control

equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. Secondary emissions do not count in determining the potential to emit of a source.

- (23) "Resource Recovery Facility" means any facility at which municipal solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing municipal solid waste for reuse. Energy conversion facilities must utilize municipal solid waste to provide 50% or more of the heat input to be considered a resource recovery facility.
- (24) "Secondary Emissions" means emissions from new or existing sources which occur as a result of the construction and/or operation of a source or modification, but do not come from the source itself. Secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the source associated with the secondary emissions. Secondary emissions may include, but are not limited to:
 - (a) Emissions from ships and trains coming to or from a facility;
 - (b) Emissions from off-site support facilities which would be constructed or would otherwise increase emissions as a result of the construction of a source or modification.
- (25) "Significant emission rate" means:
 - (a) Emission rates equal to or greater than the following for air pollutants regulated under the Clean Air Act:

Table 1 Significant Emission Rates for Pollutants Regulated Under the Clean Air Act

Signi		
Pollutant		Emission Rate
(A)	Carbon Monoxide	100 tons/year
(B)	Nitrogen Oxides	40 tons/year
(C)	Particulate Matter*	25 tons/year
	(i) TSP	25 tons/year
	(ii) PM ₁₀ Sulfur Dioxide	15 tons/year
(D)	Sulfur Dioxide	40 tons/year
(E)	Volatile Organic	· · · · · · · · · · · · · · · · · · ·
	Compounds*	40 tons/year
(F)	Lead	0.6 ton/year

CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY

(G) (H) (J) (K) (L) (M) (N)	Mercury Beryllium Asbestos Vinyl Chloride Fluorides Sulfuric Acid Mist Hydrogen Sulfide Total reduced sulfur (including hydrogen s Reduced sulfur compou		tons/year
(0)	(including hydrogen s	10	tons/year

NOTE: *For the Medford-Ashland Air Quality Maintenance Area, and the Klamath Falls Urban Growth Area, the Significant Emission Rate for particulate matter is defined in **Table 2**.

- (b) For pollutants not listed above, the Department shall determine the rate that constitutes a significant emission rate;
- (c) Any emissions increase less than these rates associated with a new source or modification which would construct within 10 kilometers of a Class I area, and would have an impact on such area equal to or greater than 1 ug/m^3 (24 hour average) shall be deemed to be emitting at a significant emission rate (see Table 2).

Table 2 (OAR 340-20-225)

Significant Emission Rates for the Nonattainment Portions of the Medford-Ashland Air Quality Maintenance Area and the Klamath Falls Urban Growth Area

Emission Rate

Annual		Day		Hour	
Air Contaminant * Kilograms Particulate Matter * 14,500	<u>(tons)</u> (5.0)	<u>Kilogram</u> 23	<u>(lbs)</u> (50.0)	<u>Kilogram</u> 4.6	<u>(lbs)</u> (10.0)
(TSP or PM_{10})	().0)	23	(50.0)	4.0	(10.0)

NOTE: *^[*] For the Klamath Falls Urban Growth Area, the Significant Emission Rates for particulate matter apply to all new or modified sources for which permit applications have not been submitted prior to June 2, 1989; particulate emission increases of 5.0 or more tons per year must be fully offset, but the application of lowest achievable emission rate (LAER) is not required unless the emission increase is 15 or more tons per year. At the option of sources with

particulate emissions of 5.0 or more but, less than 15 tons per year, LAER control technology may be applied in lieu of offsets. <u>Applies to the Medford-Ashland Air Quality Maintenance Area</u>

only.

Table 3 (OAR 340-20-225)

Significant [Air Quality]Ambient Air Quality Impact Which is Equal to or Greater Than:

Pollutant Averaging Time

<u>Pollutant</u>	<u>Annual</u>	<u>24-Hour</u>	8-Hour	<u>3-Hour</u>	<u>1-Hour</u>
so ₂	1.0 ug/m ³	5 ug/m ³		25 ug/m ³	
TSP or PM10	.2 ug/m ³	1.0 ug/m ³	4	·	
NO2	1.0 ug/m ³	-			
CO			0.5 mg/m ³		2 mg/m ³

- (26) "Significant Air Quality Impact" means an ambient air quality impact which is equal to or greater than those set out in Table 3. For sources of volatile organic compounds (VOC), a major source or major modification will be deemed to have a significant impact if it is located within 30 kilometers of an ozone nonattainment area and is capable of impacting the nonattainment area.
- (27) "Significant Impairment" occurs when visibility impairment in the judgment of the Department interferes with the management, protection, preservation, or enjoyment of the visual experience of visitors within a Class I area. The determination must be made on a case-by-case basis considering the recommendations of the Federal Land Manager; the geographic extent, intensity, duration, frequency, and time of visibility impairment. These factors will be considered with respect to visitor use of the Class I areas, and the frequency and occurrence of natural conditions that reduce visibility.
- (28) "Source" means any building, structure, facility, installation or combination thereof which emits or is capable of emitting air contaminants to the atmosphere and is located on one or more contiguous or adjacent properties and is owned or operated by the same person or by persons under common control. This includes all the pollutant emitting activities which belong to the same industrial grouping, or Major Group

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(i.e., which have the same two digit code) as described in EPA's Standard Industrial Classification (SIC) Manual (U.S. Office of Management and Budget, 1987)

(29) "Visibility Impairment" means any humanly perceptible change in visual range, contrast or coloration from that which would have existed under natural conditions. Natural conditions include fog, clouds, windblown dust, rain, sand, naturally ignited wildfires, and natural aerosols.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 8-1988, f. &cert. ef. 5-19-88 (and corrected 5-31-88); DEQ 14-1989, f. & cert. ef. 6-26-89; DEQ 27-1992, f. & cert. ef. 11-12-92

Procedural Requirements

340-20-230

- (1) Information Required. The owner or operator of a proposed major source or major modification shall submit all information necessary to perform any analysis or make any determination required under these rules. Such information shall include, but not be limited to:
 - (a) A description of the nature, location, design capacity, and typical operating schedule of the source or modification, including specifications and drawings showing its design and plant layout;
 - (b) An estimate of the amount and type of each air contaminant emitted by the source in terms of hourly, daily, <u>[seasonal,]</u> and yearly rates, showing the calculation procedure;
 - (c) A detailed schedule for construction of the source or modification;
 - (d) A detailed description of the system of continuous emission reduction which is planned for the source or modification, and any other information necessary to determine that best available control technology or lowest achievable emission rate technology, whichever is applicable, would be applied;

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- (e) To the extent required by these rules, an analysis of the air quality and/or visibility impact of the source or modification, including meteorological and topographical data, specific details of models used, and other information necessary to estimate air quality impacts; and
- (f) To the extent required by these rules, an analysis of the air quality and/or visibility impacts, and the nature and extent of all commercial, residential, industrial, and other source emission growth which has occurred since January 1, 1978, in the area the source or modification would affect.
- (2) Other Obligations:
 - (a) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to <u>these rules</u> <u>OAR</u> <u>340-20-220</u> through <u>276</u> or with the terms of any approval to construct, or any owner or operator of a source or modification subject to <u>this section</u> <u>OAR</u> <u>340-20-220</u> who commences construction <u>after the effective date of these regulations</u> without applying for and receiving an Air Contaminant Discharge Permit, shall be subject to appropriate enforcement action;
 - (b) construct shall become invalid if Approval to construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within 18 months of the scheduled time. The Department may extend the 18-month period upon satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date;
 - (c) Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan and any other requirements under local, state or federal law.
- (3) Public Participation:
 - (a) Within 30 days after receipt of an application to construct, or any addition to such application, the Department shall advise the applicant of any deficiency in the application or in the information submitted. The date of the receipt of a complete application shall be,

for the purpose of this section, the date on which the Department received all required information;

- (b)
- Notwithstanding the requirements of OAR 340-14-020, but as expeditiously as possible and at least within six months after receipt of a complete application, the Department shall make a final determination on the application. This involves performing the following actions in a timely manner:
 - (A) Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved;
 - (B) Make available for a 30-day period in at least one location a copy of the permit application, a copy of the preliminary determination, and a copy or summary of other materials, if any, considered in making the preliminary determination;
 - Notify the public, by advertisement in a (C) newspaper of general circulation in the area in which the proposed source or modification would be constructed. of the application, the preliminary determination, the extent of increment consumption that is expected from the source or modification, and the opportunity for a public hearing and for written public comment;
 - (D) Send a copy of the notice of opportunity for public comment to the applicant and to officials and agencies having cognizance over the location where the proposed construction would occur as follows: The chief executives of the city and county where the source or modification would be located, any comprehensive regional land use planning agency, any State, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the source or modification, and the Environmental Protection Agency;
 - (E) Upon determination that significant interest exists, or upon written requests for a hearing from ten (10) persons or from an organization or organizations representing at least ten persons, provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source or modification, alternatives to the source or modification, the control technology

required, and other appropriate considerations. For energy facilities, the hearing may be consolidated with the hearing requirements for site certification contained in OAR Chapter 345, Division 15;

- (F) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. No later than 10 working days after the close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The Department shall consider the applicant's response in making a final decision. The Department shall make all comments available for public inspection in the same locations Department available where the made preconstruction information relating to the proposed source or modification;
- (G) Make a final determination whether construction should be approved, approved with conditions, or disapproved pursuant to this section;
- (H) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the Department made available preconstruction information and public comments relating to the source or modification.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 18-1984, f. & ef. 10-16-84; DEQ 13-1988, f. & cert. ef. 6-17-88

Review of New Sources and Modifications for Compliance With Regulations

340-20-235 The owner or operator of a proposed major source or major modification must demonstrate the ability of the proposed source or modification to comply with all applicable requirements of the Department of Environmental Quality, including New Source Performance Standards, OAR 340-25-505 through 340-25-530, and National Emission Standards for Hazardous Air Pollutants, OAR 340-

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<u>25-450 through 340-25-485,</u> and shall obtain an Air Contaminant Discharge Permit <u>pursuant to OAR 340-20-140 through 340-20-185</u>.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81

Requirements for Sources in Nonattainment Areas

340-20-240 Proposed new major sources and major modifications which would emit a nonattainment pollutant within a designated nonattainment areas shall meet the requirements listed below:

- Lowest Achievable Emission Rate. The owner or operator of the (1)proposed major source or major modification must demonstrate that the source or modification will comply with the lowest achievable emission rate (LAER) for each nonattainment pollutant which is emitted at or above the significant emission rate [(OAR 340-20-225 definition (25))]. In the case of a major modification, the requirement for LAER shall apply only to each new or modified emission unit which increases emissions. For phased construction projects, the determination of LAER shall be reviewed at the latest reasonable time prior to commencement of construction of each independent phase.
- (2) Source Compliance. The owner or operator of the proposed major source or major modification must demonstrate that all major sources owned or operated by such person (or by an entity controlling, controlled by, or under common control with such person) in the state are in compliance or on a schedule for compliance, with all applicable emission limitations and standards under the Clean Air Act.
- (3) Offsets. The owner or operator of the proposed major source or major modification must provide offsets [as specified by these rules]as specified in OAR 340-20-255 and 340-20-260.
- (4) Net Air Quality Benefit. For cases in which emission reductions or offsets are required, the applicant must demonstrate that a net air quality benefit will be achieved in the affected area as described in OAR 340-20-260 <u>f(Requirements for Net Air Quality Benefit for Offsets)</u>] and that the reductions are consistent with reasonable further progress toward attainment of the air quality standards. Applicants in an ozone nonattainment area must demonstrate that the proposed offsets will result in a 10% net reduction in emissions, as <u>fdescribed in]required by</u> OAR 340-20-260(3)(c).

- (5) Alternative Analysis:
 - (a) The owner or operator of a proposed new major source or major modification shall conduct an alternative analysis for each nonattainment pollutant emitted at or above the significant emission rate f(OAR 340-20-225(25))], except that no analysis shall be required for Total Suspended Particulate (TSP);
 - (b) This analysis must include an evaluation of alternative sites, sizes, production processes, and environmental control techniques for such proposed source or modification which demonstrates that benefits of the proposed source or modification significantly outweigh the environmental and social costs imposed as a result of its location, construction or modification.
- (6) Special Exemption for the Salem Ozone Nonattainment Area. Proposed new major sources and major modifications which emit volatile organic compounds and oxides of nitrogen at or above the significant emission rate [(OAR 340-20-225(25))] and are located in the Salem Ozone nonattainment area shall comply with the requirements of sections (1) and (2) of this rule but are exempt from all other sections of this rule.

Stat. Auth.: ORS Ch. 468 Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 27-1992, f. & ef. 11-12-92

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Growth Increments

340-20-241 Renumbered to 340-20-245(8)

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 5-1983, f. & ef. 4-18-83; DEQ 5-1986, f. & ef. 2-21-86; DEQ 27-1992, f. & cert. ef. 11-12-92

Requirements for Sources in Attainment or Unclassified Areas (Prevention of Significant Deterioration)

340-20-245 New Major Sources or Major Modifications locating in areas designated attainment or unclassifiable shall meet the following requirements:

- (1) Best Available Control Technology. The owner or operator of the proposed major source or major modification shall apply best available control technology (BACT) for each pollutant which is emitted at a significant emission rate[(OAR 340-20-225 definition (22))]. In the case of a major modification, the requirement for BACT shall apply only to each new or modified emission unit which increases emissions. For phased construction projects, the determination of BACT shall be reviewed at the latest reasonable time prior to commencement of construction of each independent phase.
- (2) Air Quality Analysis:
 - (a) The owner or operator of the proposed major source or major modification shall demonstrate that the potential to emit any pollutant at a significant emission rate [(OAR 340-20-225 definition (22))], in conjunction with all other applicable emissions increases and decreases, [(]including secondary emissions[)], would not cause or contribute to air quality levels in excess of:
 - (A) Any state or national ambient air quality standard; or
 - (B) Any applicable increment established by the Prevention of Significant Deterioration requirements, f()OAR 340-31-110(); or
 - (C) An impact on a designated nonattainment area greater than the significant air quality impact levels [(OAR 340-20-225 definition (23))]. New sources or modifications of sources which would emit volatile organic compounds which may impact the Salem ozone nonattainment area are exempt from this requirement.
 - (b) Sources or modifications with the potential to emit at rates greater than the significant emission rate but less than 100 tons/year, and are greater than 50 kilometers from a nonattainment area are not required to assess their impact on the nonattainment area;
 - (c) If the owner or operator of a proposed major source or major modification wishes to provide emission offsets such that a net air quality benefit[as defined in], OAR 340-20-260, is provided, the Department may consider the requirements of section (2) of this rule to have been met.
- (3) Exemption for Sources Not Significantly Impacting or Contributing to Levels in Excess of Air Quality Standards or PSD Increment Levels:
 - (a) A proposed major source or major modification is exempt from OAR 340-20-220 [to]through [340-20-270]340-20-276

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if paragraphs (A) and (B) of this subsection are satisfied:

- The proposed source or major modification does (A) cause or contribute a significant air not quality impact to air quality levels in excess of any state or national ambient air quality standard; or to air quality levels in excess of any applicable increment established by the Prevention of Significant Deterioration requirements₁ $\frac{(-1)}{(-1)}$ or on a designated nonattainment area;
 - The potential emissions of the source are less than 100 tons/year for sources in the following categories or less than 250 tons/year for sources not in the following source categories:
 - Fossil fuel-fired steam electric plants (i) of more than 250 million BTU/hour heat input;
 - (ii) Coal cleaning plants [(]with thermal dryers[)];
 - (iii) Kraft pulp mills;
 - Portland cement plants; (iv)
 - Primary Zinc Smelters; (v)
 - (vi) Iron and Steel Mill Plants;
 - Primary aluminum ore reduction plants; (vii)
 - Primary copper smelters; (vii)
 - (ix) Múnicipal Incinerators capable of charging more than 250 tons of refuse per day;
 - Hydrofluoric acid plants; (X)
 - Sulfuric acid plants, (xi)
 - Nitric acid plants; (xii)
 - (xiii) Petroleum Refineries;
 - (xiv) Lime plants;
 - Phosphate rock processing plants; $(\mathbf{x}\mathbf{v})$
 - Coke oven batteries; (xvi)
 - (xvii) Sulfur recovery plants;
 - (xviii) Carbon black plants, [[]furnace process[)];
 - Primary lead smelters; (xix)
 - Fuel conversion plants; $(\mathbf{X}\mathbf{X})$
 - Sintering plants; (XXI)
 - (xxii) Secondary metal production plants;
 - (xxiii) Chemical process plants;
- boilers<u>.</u> fuel fired (xxiv) Fossil [(]or combinations thereof [], totaling more

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(B)

than 250 million BTU per hour heat input;

- (xxv) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- (xxvi) Taconite ore processing plants;

(xxvii) Glass fiber processing plants;

(xxviii) Charcoal production plants.

- (b) Major modifications are not exempted under this section unless the source including the modifications meets the requirements of paragraph (a) (A) and (B) of this section. Owners or operators of proposed sources which are exempted by this provision should refer to OAR 340-20-020 [to]through 340-20-032, Notice of Construction and Approval of Plans, and OAR 340-20-140 [to]through 340-20-185, Air Contaminant Discharge Permits, for possible applicable requirements;
- (c) A proposed major source or modification is exempted from the requirements for PM_{10} in OAR 340-22-220 to $\frac{340-20-270}{340-20-276}$ if:
 - (i) The proposed source or modification received <u>{in}an</u> Air Contaminant Discharge Permit prior to July 31, 1987, and meets all requirements of 40 CFR 52.21(i)(4)(ix); or
 - (ii) The proposed source or modification submitted a complete application for an Air Contaminant Discharge Permit prior to July 31, 1987, and meets all requirements of 40 CFR 52.21(i)(4)(x).
- (4) Air Quality Models. All estimates of ambient concentrations required under these rules shall be based on the applicable air quality models, data bases, and other requirement specified in the "Guidelines on Air Quality Models (Revised)" EPA 450/2-78-027R, U.S.Environmental Protection Agency, September 1986, including Supplement A, July, 1987. Where an air quality impact model specified in the "Guideline on Air Quality Models (Revised)" (including Supplement A) is inappropriate, the model may be modified or another model substituted. Such a change must be subject to notice and opportunity for public comment and must receive approval of the Department and the Environmental Protection Agency. Methods like those outlined in the "Interim Procedures for Evaluating Air Quality Models (Revised)" (U.S. Environmental Protection Agency, 1984) should be used to determine the comparability of models.

(5) Air Quality Monitoring:

(A)

(B)

(C)

(a)

The owner or operator of a proposed major source or major modification shall submit with the application, subject to approval of the Department, an analysis of ambient air quality in the area impacted by the proposed project. analysis shall be conducted for each This pollutant potentially emitted at a significant emission rate by the proposed source or modification. As necessary to establish ambient air quality, the analysis shall include continuous air quality monitoring data for any pollutant potentially emitted by the source or modification except for nonmethane hydrocarbons. Such data shall relate to, and shall have been gathered over the year preceding receipt of the complete application, unless the owner or operator demonstrates that such data gathered over a portion or portions of that year or another representative year would be adequate to determine that the source or modification would not cause or contribute to a violation of an ambient air quality standard or any applicable increment. Pursuant pollutant to the requirements of these rules, the owner or operator of the source shall submit for the approval of the Department, a preconstruction air quality monitoring plan.

- Air quality monitoring which is conducted pursuant to this requirement shall be conducted in accordance with 40 CFR 58 Appendix B, "Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring" and with other methods on file with the Department.
- The Department may exempt a proposed major source or major modification from monitoring for a specific pollutant if the owner or operator demonstrates that the air quality impact from the emissions increase would be less than the amounts listed below or that the concentrations of the pollutant in the area that the source or modification would impact are less than these amounts:
 - (i) Carbon monoxide 575 ug/m³, 8 hour average;

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		(ii)	Nitrogen dioxide - 14 ug/m ³ , annual average;
		(iii)	Particulate Matter: (I) TSP - 10 ug/ m^3 , 24 hour average;
		(iv)	<pre>(II) PM₁₀ -10 ug/m³, 24 hour average; Sulfur dioxide - 13 ug/m³, 24 hour average;</pre>
		(v)	Ozone - Any net increase of 100 tons/year or more of volatile organic compounds from a source or modification subject to PSD is required to perform an ambient impact analysis, including the
		(vi) (vii) (viii)	
			average;
		(ix) (x)	Fluorides - 0.25 ug/m ³ , 24 hour average; Vinyl chloride - 15 ug/m ³ , 24 hour average;
		(xi)	Total reduced sulfur - 10 ug/m ³ , 1 hour average;
		(xii)	
		(xiii)	Reduced sulfur compounds - 10 ug/m^3 , 1 hour average.
	(D	(5)(a)() precons	onitoring is required by paragraphs A) through (C) of this rule, PM ₁₀ truction monitoring shall be required ng to the following transition program:
,		(i)	
		(ii)	Complete PSD applications submitted after May 31, 1988, and before November 31, 1988 must use existing PM_{10} or other representative air quality data or collect PM_{10} monitoring data. The collected data may come from nonreference sampling methods. At least four months of data must be collected which the Department judges to include the season(s) of highest PM., levels:

the season(s) of highest PM₁₀ levels; (iii) Complete PSD applications submitted after November 31, 1988, must use reference sampling methods. At least

four months of data must be collected which the Department judges to include the season(s) of highest PM₁₀ levels.

- The owner or operator of a proposed major source or (b) major modification shall, after construction has been completed, conduct such ambient air quality monitoring as the Department may require as a permit condition to establish the effect which emissions of a pollutant, [(]other than nonmethane hydrocarbons[)], may have, or is having, on air quality in any area which such emissions would affect.
- (6) Additional Impact Analysis:
 - The owner or operator of a proposed major source or (a) major modification shall provide an analysis of the impairment to[,] soils and vegetation that would occur as a result of the source or modification, and general commercial, residential, industrial and other growth associated with the source or modification [7]. [t]The owner or operator may be exempted from providing an analysis of the impact on vegetation having no significant commercial or recreational value;
 - The owner or operator shall provide an analysis of the (b) air quality concentration projected for the area as a result of general commercial, residential, industrial and other growth associated with the major source or modification.
- (7)Sources Impacting Class I Areas:
 - (a) Where a proposed major source or major modification impacts or may impact a Class I area, the Department shall provide written notice to the Environmental Protection Agency and to the appropriate Federal Land Manager within 30 days of the receipt of such permit application, at least 30 days prior to Department Public Hearings and subsequently, of any preliminary and final actions taken with regard to such application;
 - (b) The Federal Land Manager shall be provided an opportunity in accordance with OAR 340-20-230(3) to present a demonstration that the emissions from the proposed source or modification would have an adverse impact on the air quality related values, {(}including visibility[)], of any federal mandatory Class I lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable

increment for a Class I area. If the Department concurs with such demonstration, the permit shall not be issued.

(8) Medford-Ashland Growth Margin. The owner or operator or a proposed new major source or major modification in the Medford-Ashland Maintenance Area which will emit volatile organic compounds must obtain a portion of the growth margin or offsets equal to the amount of any increase in its plant site emission limit. The growth margin shall be allocated on a first-come-first-served basis depending on the date of submittal of a complete permit applications. No single source shall receive an allocation of more than 50% of any remaining growth margin. The allocation of emission increases from the growth margins shall be calculated based on the ozone season (May 1 to September 30 of each year). The amount of each growth margin that is available is defined in the State Implementation Plan and is on file with the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 14-1985, f. & ef. 10-16-85; DEQ 8-1988, f. &cert. ef. 5-19-88 (and corrected 5-31-88); DEQ 27-1992, f. & cert. ef. 11-12-92

Exemptions

340-20-250

- (1) Resource recovery facilities burning municipal refuse and sources subject to federally mandated fuel switches may be exempted by the Department from requirements OAR 340-20-240 sections (3) and (4) provided that:
 - (a) No growth increment is available for allocation to such source or modification; and
 - (b) The owner or operator of such source or modification demonstrates that every effort was made to obtain sufficient offsets and that every available offset was secured.

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NOTE: Such an exemption may result in a need to revise the State Implementation Plan to require additional control of existing sources.

- (2) Temporary emission sources, which would be in operation at a site for less than two years, such as pilot plants and portable facilities, and emissions resulting from the construction phase of a new source or modification must comply with OAR 340-20-240(1) and (2) or OAR 340-20-245(1), whichever is applicable, but are exempt from the remaining requirements of OAR 340-20-240 and OAR 340-20-245 provided that the source or modification would impact no Class I area or no area where an applicable increment in known to be violated.
- (3) Proposed increases in hours of operation or production rates which would cause emission increases above the levels allowed in an Air Contaminant Discharge Permit and would not involve a physical change in the source may be exempted from the requirement of OAR 340-20-245(1) [- (Best Available Control Technology)] provided that the increases cause no exceedances of an increment or standard and that the net impact on a nonattainment area is less than the significant air quality impact levels. This exemption shall not be allowed for new sources or modifications that received permits to construct after January 1, 1978.
- (4) Also refer to OAR 340-20-245(3) for exemptions pertaining to sources smaller than the Federal Size-Cutoff Criteria.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81

Baseline for Determining Credit for Offsets 340-20-255

- (1) The baseline for determining credit for emission offsets shall be the Plant Site Emission Limit established pursuant to OAR 340-20-300[to]through 340-20-320 or, in the absence of a Plant Site Emission Limit, the actual emission rate for the source providing the offsets.
- (2) Sources in violation of air quality emission limitations may not supply offsets from those emissions which are or were in excess of permitted emission rates.
- (3) Emission reductions which are required pursuant to any state or federal regulation shall not be used for offsets.

- (4) Approval of offsets shall not exempt the new major sources or major modifications from Best Available Control Technology (BACT), Lowest Achievable Emission Rate (LAER), New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPS) where required.
- (5) Offsets, including offsets from mobile and area source categories, must be quantifiable and enforceable before the Air Contaminant Discharge Permit is issued and must be demonstrated to remain in effect throughout the life of the proposed source or modification.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 27-1992, f. & cert. ef. 11-12-92

Requirements for Net Air Quality Benefit

340-20-260 Demonstrations of net air quality benefit for offsets must include the following:

- (1) A demonstration must be provided showing that the proposed offsets will improve air quality in the same geographical area affected by the new source or modification. This demonstration may require that air quality modeling be conducted according to the procedures specified in the "Guideline on Air Quality Models (Revised)" (including Supplement A).
- (2) Offsets for volatile organic compounds or nitrogen oxides shall be within the same nonattainment area as the proposed source. Offsets for total suspended particulate, PM₁₀ sulfur dioxide, carbon monoxide, nitrogen dioxide, lead, and other pollutants shall be within the area of significant air quality impact.
- (3) New major sources or major modifications must meet the following offset requirements:
 - (a) within a designated nonattainment area, the offsets must provide reductions which are equivalent or greater than the proposed increases. The offsets must be appropriate in terms of short term, seasonal, and yearly time periods to mitigate the impacts of the proposed emissions;
 - (b) outside a designated nonattainment area, new major sources or major modifications which have a significant air quality impact [(OAR 340-20-225 definition (26))]

on the nonattainment area, the emission offsets must be sufficient to reduce impacts to levels below the significant air quality impact level within the nonattainment area;

- (c) within an ozone nonattainment area, new major sources or major modifications which emit volatile organic compounds or nitrogen oxides shall provide emission reductions at a 1.1 to 1 ratio (i.e., demonstrate a 10% new reduction); and
- (d) within 30 kilometers of an ozone nonattainment area, new major sources or major modifications which emit volatile organic compounds or nitrogen oxides shall provide reductions which are equivalent or greater than the proposed emission increases unless the applicant demonstrates that the proposed emissions will not impact the nonattainment area.
- (4) The emission reductions must be of the same type of pollutant as the emissions from the new source or modification. Sources of PM_{10} must be offset with particulate in the same size range. In areas where atmospheric reactions contribute to pollutant levels, offsets may be provided from precursor pollutants if a net air quality benefit can be shown.
- The emission reductions must be contemporaneous, that is, the (5)reductions must take effect prior to the time of startup but not more than two years prior to the submittal of a complete permit application for the new source or modification. This time limitation may be extended through banking, as provided 340-20-265, {(}Emission Reduction for Credit in OAR Banking[)]. In the case of replacement facilities, the Department may allow simultaneous operation of the old and new facilities during the startup period of the new facility provided that net emissions are not increased during that time period.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 8-1988, f. & cert. ef. 5-19-88 (and corrected 5-31-88); DEQ 27-1992, f. & cert. ef. 11-12-92

Emission Reduction Credit Banking

340-20-265 The owner or operator of a source of air pollution who wishes to reduce emissions by implementing more stringent

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controls than required by a permit or *fby* an applicable regulation may bank such emission reductions. Cities, counties or other local jurisdictions may participate in the emissions bank in the same manner as a private firm. Emission reduction credit banking shall be subject to the following conditions:

- (1) To be eligible for banking, emission reduction credits must be in terms of actual emission decreases resulting from permanent continuous control of existing sources. The baseline for determining emission reduction credits shall be the actual emissions of the source or the Plant Site Emission Limit established pursuant to OAR 340-20-300 [to]through 340-20-320.
- (2) Emission reductions may be banked for a specified period not to exceed ten years unless extended by the Commission, after which time such reductions will revert to the Department for use in attainment and maintenance of air quality standards.
 (3) Emission reductions which are required pursuant to an
 - adopted rule shall not be banked.
- (4)Permanent source shutdowns or curtailments other than those used within one year for contemporaneous offsets as provided in OAR 340-20-260(5) are not eligible for banking by the owner or operator but will be banked by the Department for use in attaining and maintaining standards. The two year limitation for contemporaneous offsets shall not be applicable to those shutdowns or curtailments which are to be used as internal offsets within a plant as part of a specific plan. Such a plan for use of internal offsets shall be submitted to the Department and receive written approval within one year of the permanent shutdown or curtailment. A permanent source shutdown or curtailment shall be considered to have occurred when a permit is modified, revoked or expires without renewal pursuant to the criteria established in OAR 340-14-005 through 340-14-050.
- (5) The amount of banked emission reduction credits shall be discounted without compensation to the holder for a particular source category when new regulations requiring emission reductions are adopted by the Commission. The amount of discounting of banked emission reduction credits shall be calculated on the same basis as the reductions required for existing sources which are subject to the new regulation. Banked emission reduction credits shall be subject to the same rules, procedures, and limitations as permitted emissions.
- (6) Emission reductions must be in the amount of ten tons per year or more to be creditable for banking except as follows:
 (a) In the Medford-Ashland AQMA emission reductions must be

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at least in the amount specified in Table 2 of OAR 340-20-225[(20)](25);

- In Lane County, the Lane Regional Air Pollution (b) Authority may adopt lower levels.
- (7) Requests for emission reduction credit banking must be submitted to the Department and must contain the following documentation:
 - A detailed description of the processes controlled; (a)
 - (b) Emission calculations showing the types and amounts of actual emissions reduced;
 - The date or dates of such reductions; (C)
 - Identification of the probable uses to which the banked (d) reductions are to be applied;
 - Procedure by which such emission reductions can be (e) rendered permanent and enforceable.
- (8) Requests for emission reduction credit banking shall be submitted to the Department prior to or within the year following the actual emissions reduction. The Department shall approve or deny requests for emission reduction credit banking and, in the case of approvals, shall issue a letter to the owner or operator defining the terms of such banking. The Department shall take steps to insure the permanence and enforceability of the banked emission reductions by including appropriate conditions in Air Contaminant Discharge Permits and by appropriate revision of the State Implementation Plan.
- (9) The Department shall provide for the allocation of the banked emission reduction credits in accordance with the uses specified by the holder of the emission reduction credits. emission reduction credits are transferred, When the Department must be notified in writing. Any use of emission reduction credits must be compatible with local comprehensive plans, *[8]s*tatewide planning goals, and state laws and rules.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.1

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 27-1992, f. & cert. ef. 11-12-92

Fugitive and Secondary Emissions

340-20-270 Fugitive emissions shall be included in the calculation of emission rates of all air contaminants. Fugitive emissions are subject to the same control requirements and analyses required for emissions from identifiable stacks or vents. Secondary

emissions shall not be included in calculations of potential emissions which are made to determine if a proposed source or modification is major. Once a source or modification is identified as being major, secondary emissions must be added to the primary emissions and become subject to these rules.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81

Stack Heights

340-20-275 [DEQ 25-1981, f. & ef. 9-8-81; Repealed by DEQ 5-1983, f. & ef. 4-18-83]

Visibility Impact

340-20-276 New major sources or major modifications located in Attainment, Unclassified or Nonattainment Areas shall meet the following visibility impact requirements.

- (1) Visibility impact analysis:
 - (a) The owner or operator of a proposed major source or major modification shall demonstrate that the potential to emit any pollutant at a significant emission rate <u>f(OAR-340-20-225, definition (22))</u> in conjunction with all other applicable emission increases or decreases, <u>f()</u>including secondary emissions[)], permitted since January 1, 1984, shall not cause or contribute to significant impairment of visibility within any Class I area;
 - (b) Proposed sources which are exempted under OAR 340-20-245(3); excluding subsection (3) (a) (A) of this rule; are not required to complete a visibility impact assessment to demonstrate that the sources do not cause or contribute to significant visibility impairment within a Class I area. The visibility impact assessment for sources exempted under this section shall be completed by the Department;
 - (c) The owner or operator of a proposed major source or major modification shall submit all information necessary to perform any analysis or demonstration required by these rules pursuant to OAR 340-20-230(1).
- (2) Air quality models. All estimates of visibility impacts required under this rule shall be based on the models on file

with the Department. Equivalent models may be substituted if approved by the Department. The Department will perform visibility modeling of all sources with potential emissions less than 100 tons/year of any individual pollutant and locating closer than 30 Km to a Class I area, if requested. Determination of significant impairment: The results of the modeling must be sent to the affected land managers and the Department. The land managers may, within 30 days following receipt of the source's visibility impact analysis, determine whether or not impairment of visibility in a Class I area would result. The Department will consider the comments of the Federal Land Manager in its consideration of whether significant impairment will result. Should the Department determine that impairment would result, a permit for the proposed source will not be issued.

- (4)Visibility monitoring:
 - The owner or operator of a proposed major source or (a) major modification which emit more than 250 tons per year of TSP, SO_2 or NO_2 shall submit with the application, subject to approval of the Department, an analysis of visibility in or immediately adjacent to the Class I area impacted by the proposed project. As necessary to establish visibility conditions within the Class I area, the analysis shall include a collection continuous visibility monitoring data for all of pollutants emitted by the source that could potentially impact Class I area visibility. Such data shall relate to and shall have been gathered over the year preceding receipt of the complete application, unless the owner or operator demonstrates that data gathered over a shorter portion of the year for another representative year 1, 1 would be adequate to determine that the source of major modification would not cause or contribute to significant impairment. Where applicable, the owner or operator may demonstrate that existing visibility monitoring data may be suitable. Pursuant to the requirements of these rules, the owner or operator of the source shall submit, for the approval of the Department, a preconstruction visibility monitoring plan;
 - (b) The owner or operator of a proposed major source or major modification shall, after construction has been completed, conduct such visibility monitoring as the Department may require as a permit condition to establish the effect which emissions of pollutant may have, or is having, on visibility conditions with the

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(3)

Class I area being impacted.

- (5) Additional impact analysis: The owner or operator of a proposed major source or major modification subject to OAR 340-20-245(6)(a) shall provide an analysis of the impact to visibility that would occur as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or major modification.
- (6) Notification of permit application:
 - (a) Where a proposed major source modification impacts or may impact visibility within a Class I area, the Department shall provide written notice to the Environmental Protection Agency and to the appropriate Federal Land Manager within 30 days of the receipt of such permit application. Such notification shall include a copy of all information relevant to the permit application, including analysis of anticipated impacts on Class I area visibility. Notification will also be sent at least 30 days prior to Department Public Hearings and subsequently of any preliminary and final actions taken with regard to such application;
 - (b) Where the Department receives advance notification of a permit application of a source that may affect Class I area visibility, the Department will notify all affected Federal Land Managers within 30 days of such advance notice;
 - (c) The Department will, during its review of source impacts on Class I area visibility pursuant to this rule, consider any analysis performed by the Federal Land Manager that is provided within 30 days of notification required by subsection (a) of this section. If the Department disagrees with the Federal Land Manager's demonstration, the Department will include a discussion of the disagreement in the Notice of Public Hearing;
 - (d) The Federal Land Manager shall provided be an opportunity in accordance with OAR 340-20-230(3) to present a demonstration that the emissions from the proposed source of modification would have an adverse impact on visibility of any Federal mandatory Class I lands, notwithstanding that the change in air quality resulting from emissions from such source fofjor modification would not cause or contribute to concentrations which would exceed the maximum allowable increment for a Class I area. If the Department concurs with such demonstration, the permit shall not be

issued.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1984, f. & ef. 10-16-84; DEQ 14-1985, f. & ef. 10-16-85

Plant Site Emission Limits

Policy

340-20-300 The Commission recognizes the need to establish a more definitive method for regulating increases and decreases in air emissions of air quality permit holders as contained in OAR 340-20-301 through 340-20-320. However, by the adoption of these rules, the Commission does not intend to: limit the use of existing production capacity of any air quality permittee; cause any undue hardship or expense to any permittee due to the utilization of existing unused productive capacity; or create inequity within any class of permittees subject to specific industrial standards which are based on emissions related to production. <u>Plant Site Emission</u> <u>Limits (PSELs)</u> can be established at levels higher than baseline provided a demonstrated need exists to emit at a higher level and PSD increments and air quality standards would not be violated and reasonable further progress in implementing control strategies would not be impeded.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 25-1981, f. & ef. 9-8-81

Requirement for Plant Site Emission Limits 340-20-301

- Plant fslsite felsmission fllLimits (PSEL) shall be incorporated in all Air Contaminant Discharge Permits except minimal source permits and special letter permits as a means of managing airshed capacity. All sources subject to regular permit requirements shall be subject to PSELs for all federal and state regulated pollutants. PSELs will be incorporated in permits when permits are renewed, modified, or newly issued.
 The emissions limits established by PSELs shall provide the
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basis for:

- (a) Assuring reasonable further progress toward attaining compliance with ambient air standards;
- (b) Assuring that compliance with ambient air standards and Prevention of Significant Deterioration increments are being maintained;
- (c) Administering offset, banking and bubble programs;
- (d) Establishing the baseline for tracking consumption of Prevention of Significant Deterioration Increments.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81

Definitions

340-20-305

<u>As used in OAR 340-20-300 through 340-20-320:</u>

- (1) "Actual Emissions" means the mass rate of emissions of a pollutant from an emissions source:
 - (a) In general, actual emissions as of the baseline period shall equal the average rate at which the source actually emitted the pollutant during a baseline period and which is representative of normal source operation. Actual emissions shall be calculated using the source's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period;
 - (b) The Department may presume that existing source-specific permitted mass emissions for the source are equivalent to the actual emissions of the source if they are within 10% of the calculated actual emissions;
 - (c) For any newly permitted emissions source which had not yet begun normal operation in the baseline period, actual emissions shall equal the potential to emit of the source.
- (2) "Baseline Emission Rate" means the average actual emission rate during the baseline period. Baseline emission rate shall not include increases due to voluntary fuel switches or increased hours of operation that have occurred after the baseline period.
- (3) "Baseline Period" means either calendar years 1977 or 1978. The Department shall allow the use of a prior time period upon a determination that it is more representative of normal

source operation.

- (4) "Normal Source Operation" means operations which do not include such conditions as forced fuel substitution, equipment malfunction, or highly abnormal market conditions.
- equipment malfunction, or highly abnormal market conditions.
 "Plant Site Emission Limit (PSEL)" means the total mass emissions per unit time of an individual air pollutant specified in a permit for a source.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81

Criteria for Establishing Plant Site Emission Limits 340-20-310

- (1) For existing sources, PSELs shall be based on the baseline emission rate for a particular pollutant at a source and shall be adjusted upward or downward pursuant to Department Rules:
 - (a) If an applicant requests that the Plant Site Emission Limit be established at a rate higher than the baseline emission rate, the applicant shall:
 - (A) Demonstrate that the requested increase is less than the significant emission rate increase defined in OAR 340-20-225[(22)](25); or
 - Provide an assessment of the air quality impact (B) to procedures specified pursuant in OAR 340-20-240 to 340-20-245. A demonstration that no air quality standard or PSD increment will be violated in an attainment area or that a growth available increment or offset is in а nonattainment area shall be sufficient to allow increase in the **fPlant**—Site—Emission an Limit]PSEL to an amount not greater than the plant's demonstrated need to emit as long as no physical modification of an emissions unit is involved.
 - (b) Increases above baseline emission rates shall be subject to public notice and opportunity for public hearing pursuant to the Department's permit requirements.
- (2) PSELs shall be established on at least an annual emission basis and a short term period emission basis that is compatible with source operation and air quality standards.

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- (3) Mass emission limits may be established separately within a particular source for process emissions, combustion emissions, and fugitive emissions.
- (4) Documentati on of PSEL calculations shall be available to the permittee.
- (5) For new sources, PSELs shall be based on application of applicable control equipment requirements and projected operating conditions.
- (6) PSELs shall not **be established which** allow emissions in excess of those allowed by any applicable federal or state regulation or by any specific permit condition unless specific provisions of OAR 340-20-315 are met.
- (7) PSELs may be changed pursuant to Department rules when:
 - (a) Errors are found or better data is available for calculating PSELs;
 - (b) More stringent control is required by a rule adopted by the Environmental Quality Commission;
 - (c) An application is made for a permit modification pursuant to <u>OAR 340-20-140 through 340-20-185, [the]</u> Air Contaminant Discharge Permit<u>s, [requirements]</u> and <u>OAR</u> <u>340-20-220 through 340-20-276, [the]</u> New Source Review, <u>[requirements]</u> and approval can be granted based on growth increments, offsets, or available Prevention of Significant Deterioration increments;
 - (d) The Department finds it necessary to initiate modifications of a permit pursuant to OAR 340-14-040, Modification of a Permit.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81

Alternative Emission Controls (Bubble)

340-20-315 Alternative emission controls may be approved for use within a plant site such that specific mass emission limit rules are exceeded provided that:

- (1) Such alternatives are not specifically prohibited by a permit condition.
- (2) Net emissions for each pollutant are not increased above the Plant Site Emission Limit.
- (3) The net air quality impact is not increased as demonstrated by procedures required by OAR 340-20-260 (Requirements for Net Air Quality Benefit).

- (4) No other pollutants including malodorous, toxic or hazardous pollutants are substituted.
- (5) Best Available Control Technology (BACT) and Lowest Achievable Emission Rate (LAER) where required by a previously issued permit and New Source Performance Standards (NSPS), OAR 340-25-505 through 530, and National Emission Standards for Hazardous Air Pollutants (NESHAP), OAR 340-25-450 through 340-25-485, where required, are not relaxed.
- (6) Specific mass emission limits are established for each emission unit involved such that compliance with the PSEL can be readily determined.
- (7) Application is made for a permit modification and such modification is approved by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 25-1981, f. & ef. 9-8-81

Temporary PSD Increment Allocation

340-20-320

- (1) PSELs may include a temporary or time-limited allocation against an otherwise unused PSD increment in order to accommodate voluntary fuel switching or other cost or energy saving proposals provided it is demonstrated to the Department that:
 - (a) No ambient air quality standard is exceeded;
 - (b) No applicable PSD increment is exceeded;
 - (c) No nuisance condition is created;
 - (d) The applicant's proposed and approved objective continues to be realized.
- (2) When such demonstration is being made for changes to the PSEL, it shall be presumed that ambient air quality monitoring shall not be required of the applicant for changes in hours of operation, changes in production levels, voluntary fuel switching or for cogeneration projects unless, in the opinion of the Department, extraordinary circumstances exist.
- (3) Such temporary allocation of a PSD increment must be set forth in a specific permit condition issued pursuant to the Department's Notice and Permit Issuance or Modification Procedures.
- (4) Such temporary allocations must be specifically time limited and may be recalled under specified notice conditions.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 25-1981, f. & ef. 9-8-81

Stack Heights and Dispersion Techniques

Definitions

340-20-340 [DEQ 5-1983, f. & ef. 4-18-83; Repealed by DEQ 11-1986, f. & ef. 5-12-86]

Limitations

340-20-345 [DEQ 5-1983, f. & ef. 4-18-83; Repealed by DEQ 11-1986, f. & ef. 5-12-86]

Excess Emissions

Purpose and Applicability

340-20-350 Emissions of air contaminants in excess of applicable standards or permit conditions are considered unauthorized and subject to enforcement action, pursuant to OAR 340-20-360 through 340-20-380. [These rules]OAR 340-20-350 through 340-20-380 apply to any source which emits air contaminants in violation of any applicable air quality rule or permit condition resulting from the breakdown of air pollution control equipment or operating equipment, process upset, start up, shut down, or scheduled maintenance. The purpose of these rules is to:

- (1) Require that, where applicable, all excess emissions be reported by sources to the Department immediately;
- (2) Require sources to submit information and data regarding conditions which resulted or could result in excess emissions; and
- (3) Identify criteria to be used by the Department for determining whether enforcement action will be taken against an excess emission.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.280] & 468A Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 42-1990, f. 12-13-90,

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cert. ef. 1-2-91; Renumbered from 340-21-065

Definitions

340-20-355 As used in through 340-20-380f, unless otherwise required by context]:

- (1) "Event" means any period of excess emissions.
- (2) "Excess emissions" means emissions which are in excess of an Air Contaminant Discharge Permit limit or any applicable air quality rule.
- (3) "Immediately" means as soon as possible but in no case more than one hour after the beginning of the excess emission period.
- (4) "Large Source" means any stationary source whose actual emissions or potential controlled emissions while operating full-time at the design capacity are equal to or exceed 100 tons per year of any regulated pollutant, or which is subject to a National Emissions Standard for Hazardous Air Pollutants. Where plant site emission limits (PSEL) have been incorporated into the Air Contaminant Discharge Permit, the PSEL shall be used to determine actual emissions.
- (5) "Permittee" means the owner or operator of the facility, in whose name the operation of the source is authorized by the Air Contaminant Discharge Permit.
- (6) "Process Upset" means a failure or malfunction of a production process or system to operate in a normal and usual manner.
- (7) "Small Source" means any stationary source with a regular Air Contaminant Discharge Permit (not a letter permit or a minimal source permit) which is not classified as a large source.
- (8) "Startup" and "shutdown" means that time during which an air contaminant source or emission-control equipment is brought into normal operation or normal operation is terminated, respectively.
- (9) "Unavoidable" means events which are not caused entirely or in part by poor or inadequate design, operation, maintenance, or any other preventable condition in either process or control equipment.
- (10) "Upset" or "Breakdown" mean any failure or malfunction of any pollution control equipment or operating equipment which may cause an excess emission.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.280] & 468A Hist.: DEQ 42-1990, f. 12-13-90, cert. ef. 1-2-91

Planned Startup and Shutdown

340-20-360

- (1) In cases where startup or shutdown of a production process or system may result in excess emissions, prior Department authorization shall be obtained of startup/ shutdown procedures that will be used to minimize excess emissions. Application for approval of procedures shall be submitted and received by the Department in writing at least seventy-two (72) hours prior to the event, and shall include the following:
 - (a) The reasons why the excess emissions during startup and shutdown could not be avoided;
 - (b) Identification of the specific production process or system causing the excess emissions;
 - (c) The nature of the air contaminants likely to be emitted, and an estimate of the amount and duration of the excess emissions;
 - (d) Identification of specific procedures to be followed which will minimize excess emissions at all times.
- (2) Approval of the startup/shutdown procedures by the Department shall be based upon determination that said procedures are consistent with good pollution control practices, and will minimize emissions during such period to the extent practicable, and that no adverse health impact on the public will occur. The permittee shall record all excess emissions in the upset log as required in OAR 340-20-375(3). Approval of the startup/shutdown procedures shall not absolve the permittee from enforcement action if the approved procedures are not followed, or if excess emissions which occur are determined by the Department to be avoidable, pursuant to OAR 340-20-380[(1)].
- (3) No startups or shutdowns resulting in excess emissions associated with the approved procedures in section (2) of this rule shall occur during any period in which an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency has been declared, or during an announced yellow or red woodstove curtailment period in areas designated by the Department as PM. Nonattainment Areas.
- Department as PM₁₀ Nonattainment Areas.
 (4) In cases where notification of a planned startup or shutdown is likely to cause excess emissions has not been provided to the Department 72 hours prior to the event, the permittee shall immediately notify the Department by telephone of the situation, and shall be subject to the requirements under

Upsets and Breakdowns in OAR 340-20-370.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.280] & 468A Hist.: DEQ 42-1990, f. 12-13-90, cert. ef. 1-2-91

Scheduled Maintenance

340-20-365

- (1) In cases where it is anticipated that shutdown, by-pass, or operation at reduced efficiency of air pollution control equipment for necessary scheduled maintenance may result in excess emissions, prior Department authorization shall be obtained of procedures that will be used to minimize excess emissions. Application for approval of procedures associated with scheduled maintenance shall be submitted and received by the Department in writing at least seventy-two (72) hours prior to the event, and shall include the following:
 - (a) The reasons explaining the need for maintenance, including why it would be impractical to shut down the source operation during the period, and why the by-pass or reduced efficiency could not be avoided through better scheduling for maintenance or through better operation and maintenance practices;
 - (b) Identification of the specific production or emission control equipment or system to be maintained;
 - (c) The nature of the air contaminants likely to be emitted during the maintenance period, and the estimated amount and duration of the excess emissions, including measures[,] such as the use of overtime labor and contract services and equipment, that will be taken to minimize the length of the maintenance period;
 - (d) Identification of specific procedures to be followed which will minimize excess emissions at all times.
- (2) Approval of the above procedures by the Department shall be based upon determination that said procedures are consistent with good pollution control practices, and will minimize emissions during such period to the extent practicable, and that no adverse health impact on the public will occur. The permittee shall record all excess emissions in the upset log as required in OAR 340-20-375(3). Approval of the above procedures shall not absolve the permittee from enforcement action if the approved procedures are not followed, or if excess emissions occur which are determined by the Department

to be avoidable, pursuant to OAR 340-20-380{(1)}.

- (3) No scheduled maintenance associated with the approved procedures in section (2) of this rule, which is likely to result in excess emissions, shall occur during any period in which an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency has been declared, or during an announced yellow or red woodstove curtailment period in areas designated by the Department as PM₁₀ Nonattainment Areas.
- (4) In cases where notification of necessary scheduled maintenance likely to cause excess emissions has not been provided to the Department 72 hours prior to the event, the permittee shall immediately notify the Department by telephone of the situation, and shall be subject to the requirements under Upset and Breakdowns in OAR 340-20-370.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.280] & 468A Hist.: DEQ 42-1990, f. 12-13-90, cert. ef. 1-2-91

Upsets and Breakdowns

340-20-370

- (1) For large sources, as defined by OAR 340-20-355(4), all excess emissions due to upset or breakdown must be reported to the Department immediately. Based on the severity of the event, the Department will either require submittal of a written report pursuant to OAR 340-20-375(1) and (2), or a recording of the event in the upset log as required in OAR 340-20-375(3).
- (2) Small sources, as defined by OAR 340-20-355(7), need not report excess emissions due to upset or breakdown immediately unless required to do so by permit condition or written notice by the Department, or unless the excess emission is of a nature that could endanger public health. Based on the severity of the event, the Department will either require submittal of a written report pursuant to OAR 340-20-375(1) and (2), or a recording of the event in the upset log as required in OAR 340-20-375(3).
- (3) During any period of excess emissions due to upset or breakdown, the Department may require that a source immediately proceed to reduce or cease operation of the equipment or facility until such time as the condition causing the excess emissions has been corrected or brought under control. Such action by the Department would be taken

upon consideration of the following factors:

- (a) Potential risk to the public or environment;
- (b) Whether shutdown could result in physical damage to the equipment or facility, or cause injury to employees;
- (c) Whether any Air Pollution Alert, Warning, Emergency, or yellow or red woodstove curtailment period exists; or
- (d) If continued excess emissions were determined by the Department to be avoidable.
- In the event of any on-going period of excess emissions due to upset or breakdown, the source shall cease operation of the equipment or facility no later than 48 hours after the beginning of the excess emission period, if the condition causing the emissions is not corrected within that time. The source need not cease operation if it can obtain Department's approval of procedures that will be used to minimize excess emissions until such time as the condition causing the excess emissions is corrected or brought under control. Approval of these procedures shall be based on the following information supplied to the Department:
 - (a) The reasons why the condition(s) causing the excess emissions cannot be corrected or brought under control. Such reasons shall include but not be limited to equipment availability and difficulty of repair or installation;
 - (b) Information as required in OAR 340-20-360(1)(b), (c), and (d).
- (5) Approval of the above procedures by the Department shall be based upon determination that said procedures are consistent with good pollution control practices, and will minimize emissions during such period to the extent practicable, and that no adverse health impact on the public will occur. The permittee shall record all excess emissions in the upset log as required in OAR 340-20-375(3). At any time during the period of excess emissions the Department may require the source to cease operation, in accordance with section (3) of this rule. In addition, approval of these procedures shall not absolve the permittee from enforcement action if the approved procedures are not followed, or if excess emissions occur that are determined by the Department to be avoidable, pursuant to OAR 340-20-380.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.280] & 468A

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(4)

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Hist.: DEQ 42-1990, f. 12-13-90, cert. ef. 1-2-91

Reporting Requirements

340-20-375

- (1) For any period of excess emissions, the Department may require the source to submit a written excess emission report within fifteen (15) days of the date of the event, which includes the following:
 - (a) The date and time each event was reported to the Department;
 - (b) Information as described in OAR 340-20-380(1) through
 (5);
 - (c) The final resolution of the cause of the excess emissions.
- (2) Based on the severity of event, the Department may waive the 15 day reporting requirement, and specify either a shorter or longer time period for report submittal. The Department may also waive the submittal of the written report, if in the judgement of the Department, the period or magnitude of excess emissions was minor. In such cases the source shall record the event in the upset log pursuant to section (3) of this rule.
- (3) Large and small sources shall keep an upset log of all planned and unplanned excess emissions. The upset log shall include all pertinent information as required in section (1) of this rule.
- (4) At each annual reporting period specified in a permit, or sooner if required by the Department, the permittee shall submit a copy of the log entries for the reporting period. Upset logs shall be kept by the permittee for two (2) calendar years.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.280] & 468A Hist.: DEQ 42-1990, f. 12-13-90, cert. ef. 1-2-91

Enforcement Action Criteria

340-20-380 In determining if a period of excess emissions is avoidable, and whether enforcement action is warranted, the Department shall consider the following information submitted by the source.

(1) Whether notification occurred immediately pursuant to OAR 340-20-370(1) and (2).

- (2) Whether the event occurred during startup, shutdown, maintenance, or as a result of a breakdown or malfunction.
- (3) Whether the Department was furnished with complete details of the event, i.e., the equipment involved, the duration or best estimate of the time until return to normal operation, the magnitude of emissions and the increase over normal rates or concentrations as determined by continuous monitoring or a best estimate (supported by operating data and calculations).
- (4) Whether the amount and duration of the excess emission were limited to the maximum extent practicable during the period of excess emissions.
- (5) Whether the appropriate remedial action was taken.
- (6) Whether the event was due to negligent or intentional operation by the source. For the Department to find that an incident of excess emissions is not due to negligent or intentional operation by the source, the permittee must demonstrate, upon Department request, that all of the following conditions were met:
 - (a) The process or handling equipment and the air pollution control equipment were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
 - (b) Repairs or corrections were made in an expeditious manner when the operator(s) knew or should have known that emission limits were being or were likely to be exceeded. Expeditious manner may include such activities as use of overtime labor or contract labor and equipment that would reduce the amount and duration of excess emissions;
 - (c) The event was not one in a recurring pattern of incidents which indicate inadequate design, operation, or maintenance.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.280] & 468A Hist.: DEQ 42-1990, f. 12-13-90, cert. ef. 1-2-91

Parking Offsets in the Portland Central Business District

Purpose

340-20-400 [These rules]OAR 340-20-400 through 340-20-430 allow the City of Portland, through application of transportation

emission offsets, to meet new parking growth needs in the Central Business District without increasing carbon monoxide emissions.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.380] & 468A Hist.: DEQ 43-1990, f. & cert. ef. 12-19-90

Scope

340-20-405 Subject to the provisions of <u>[these rules]OAR 340-</u> <u>20-400 through 340-20-430</u>, the City of Portland may utilize motor vehicle emission offsets for the purpose of increasing off-street parking spaces by up to 1,370 spaces above the 43,914 parking space limit contained in the Portland carbon monoxide control strategy (Section 4.2 of the State Implementation Plan, OAR 340-20-047). If further increases are needed, the City of Portland shall make a request to the Department of Environmental Quality for an appropriate rule change and State Implementation Plan revision at least six months prior to the needed increase.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.380] & 468A Hist.: DEQ 43-1990, f. & cert. ef. 12-19-90

Definitions

340-20-410

<u>As used in OAR 340-20-400 through 340-20-430:</u>

- (1) "Category I" means a parking offset measure that would reduce vehicle emissions on a per vehicle trip basis.
- (2) "Category II" means a parking offset measure that would reduce the number of vehicle trips.
- (3) "Core Area" means Parking Sectors C, E, F, and G in the central business district of downtown Portland as identified in the 1985 Updated Downtown Parking and Circulation Policy adopted by the Portland City Council on February 26, 1986.
- (4) "Department" means the Oregon Department of Environmental Quality.
- (5) "Downtown Parking Inventory" means the total number of parking spaces authorized for use in the central business district of downtown Portland in the Portland carbon monoxide control strategy (Section 4.2 of the State Implementation

Plan). The Downtown Parking Inventory is made up of existing spaces, spaces allocated to new development but not yet built, and reserve spaces available to be allocated.

- (6) "Downtown Parking Management Plan" means the plan prepared by the Portland Office of Transportation in July 1990 and subsequently adopted by the Portland City Council on July 18, 1990. The Downtown Parking Management Plan provides direction for the management of parking resources in downtown Portland.
- (7) "Long-Term Parking Space" means any parking space where the parking duration is allowed to exceed 4 hours.
- (8) "Motor Vehicle" means self-propelled vehicles powered by internal combustion engines including, but not limited to, automobiles, trucks and motorcycles.
- (9) "Non-core Area" means Parking Sectors A, B, D, H, J, K, and L in the central business district of downtown Portland as identified in the 1985 Updated Downtown Parking and Circulation Policy adopted by the Portland City Council on February 26, 1986.
- (10) "Offsets Study" means the Air Quality Offsets for Parking study prepared for the City of Portland by Cambridge Systematics, Inc. dated January 25, 1988.
- (11) "Parking Emission Offset" means any emission reduction measure applied to motor vehicles which provides an equivalent or greater emission reduction prior to allowing an emission increase from motor vehicles using new off-street parking. Such emission reduction measures shall include but not be limited to the following measures from the Offsets Study:
 - (a) Fringe Parking (Category II);
 - (b) Alternative Work Schedules (Category I);
 - (c) Subsidy of Ridesharing (Category II);
 - (d) Increase Long-Term Parking Space Rates (Category II);
 - (e) Increase All Parking Rates (Category II);
 - (f) Restrict Off-Street Parking Before 10 a.m. (Category
 I);
 - (g) Reserve Parking for Carpools (Category II);
 - (h) Park and Ride Remote Lots (Category II);
 - (i) Alternative Fuels (Category I);
 - (j) Enhanced Vehicle Inspection and Maintenance (Category I);
 - (k) Increased Transit Capacity (Category II);

(1) Traffic Flow Improvement (Category I);

- (m) Bicycle Access (Category II).
- (12) "Short-Term Parking Space" means any parking space having a parking duration of up to 4 hours.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.380] & 468A Hist.: DEQ 43-1990, f. & cert. ef. 12-19-90

Requirements for Parking Offsets

- 340-20-420
- (1) The baseline year for determining parking offset emission credits is 1987 with the following carbon monoxide emission and parking space equivalences identified in the Offsets Study:
 - (a) 122.5 grams per day for a core area off-street parking space; and
 - (b) 107.8 grams per day for a non-core area off-street parking space.
- (2) In order to insure a net air quality benefit, the following ratios shall be used to calculate the number of additional parking spaces allowed:
 - (a) Category I parking offsets at a 1.2 ratio; and
- (3) The City of Portland shall submit applications for parking emission offsets to the Department of Environmental Quality for approval. The application shall include at least the following elements:
 - Proposed number and sector type (core or non-core) of additional parking spaces;
 - (b) Proposed offsets quantified according to calculation procedures in the Offsets Study and sections (1) and (2) of this rule;
 - (c) Documentation of permanence and enforceability of proposed offsets; and
 - (d) Monitoring plan to provide at least an annual assessment of whether the offset is maintaining its projected effectiveness.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 [.380] & 468A

Hist.: DEQ 43-1990, f. & cert. ef. 12-19-90

Overall Monitoring and Contingency Plan 340-20-430

- (1) The City of Portland shall monitor the overall effectiveness of the Downtown Parking Management Plan. The City of Portland monitoring program shall include at least the following elements:
 - (a) A semi-annual report on the Downtown Parking Inventory;
 - (b) An every-third-year update of significant changes in parking utilization rates and parking lot types;
 - (c) Continuous monitoring of traffic volumes [(]and speed approximations [)] at 19 or more key locations in downtown beginning in January 1991;
 - (d) Annual to quarterly floating car speed runs on critical streets as requested by the Department;
 - (e) Annual evaluation of effectiveness of specific offset measures approved under these rules.
- (2) Before any offsets are approved by the Department, the City of Portland shall guarantee the permanence of offset measures by providing the Department with a contingency plan adopted by resolution. In the event the offset monitoring required by OAR 340-20-420(3)(d) indicates an offset measure is not providing the projected effectiveness and the City of Portland is unable to correct the deficiency within six months of notification by the Department, then the City of Portland shall commit through resolution to:
 - (a) Reduce the number of spaces in the reserve portion of the Downtown Parking Inventory by an equivalent number of spaces; or
 - (b) Reduce the hours of operation of City-provided off-street parking by delaying opening until 10 a.m. of an equivalent number of spaces as determined by calculation procedures in the Offsets Study; or
 - (c) Remove equivalent existing parking spaces.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.380] & 468A Hist.: DEQ 43-1990, f. & cert. ef. 12-19-90

Emission Statements for VOC and NOx Sources in Ozone Nonattainment Areas

Purpose and Applicability

340-20-450

- (1) The purpose of these rules is to obtain data on actual emissions of volatile organic compounds (VOC) and nitrogen oxides (NOX) from sources in ozone nonattainment areas, in accordance with Federal Clean Air Act requirements, for the purpose of monitoring progress toward attainment of the ozone national ambient air quality standard.
- (2) This rule shall apply to sources of VOC and NOX in ozone nonattainment areas, with a Plant Site Emission Limit (PSEL) greater than 25 tons per year for either pollutant, and to any source whose actual emissions exceeds 25 tons per year.
- (3) For purposes of establishing consistent emission reporting requirements, VOC and NOX sources already subject to the Department's Interim Emission Fee Rules (OAR 340-20-500 to 340-20-660) and electing to pay fees based on actual emissions shall report emission data to the Department, utilizing procedures identified in those rules to calculate actual VOC and NOX emissions, to the extent applicable. Other sources shall use current and applicable emission factors and actual production data to estimate and report actual emissions.

Stat. Auth.: ORS Ch. 468A Hist: AQ 23, f. & ef. 11-12-92

Definitions

340-20-460 As used in OAR 340-20-450 through 340-20-490, unless otherwise required by context:

- (1) "Actual emissions" means all emissions including but not limited to routine process emissions, fugitive emissions, excess emissions from maintenance, startups and shutdowns, equipment malfunction, and other activities.
- (2) "Certifying individual" means the responsible corporate official who certifies the accuracy of the emission statement.
- (3) "Emission Factor" means an estimate of the rate at which a pollutant is released into the atmosphere, as the result of some activity, divided by the rate of that activity (e.g., production or process rate). Sources shall use an EPA or DEQ approved emission factor.

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- (4) "Nitrogen Oxides (NOx)" means all oxides of nitrogen except nitrous oxide.
- (5) "Nonattainment area" means a geographical area of the State which exceeds any federal ambient air quality standard, and is designated as nonattainment by the Environmental Protection Agency.
- (6) "Ozone Season" means the contiguous 3 month period of the year during which ozone exceedances typically occur (i.e., June, July, and August).
- (7) "Plant Site Emission Limit (PSEL)" means the total mass emissions per unit of time of an individual air pollutant specified in a permit for a stationary source.
- (8) "Source" means any building, structure, facility, installation or combination thereof which emits or is capable of emitting air contaminants to the atmosphere, and is located on one or more contiguous or adjacent properties and is owned or operated by the same person or by persons under common control.
- (9) "Source category" means all the pollutant emitting activities which belong to the same industrial grouping (i.e., which have the same two-digit code) as described in EPA's Standard Industrial Classification (SIC) Manual.
- "Volatile organic compounds (VOC)" means any organic compound (10)excluding carbon monoxide, carbon dioxide, of carbon; carbonic acid, metallic carbides, carbonates, and ammonium carbonate; which participates in atmospheric photochemical reactions to form ozone; that is, any precursor organic compound which would be emitted during use, application, curing, or drying of a surface coating, solvent, or other Excluded from this category are those compounds material. which the U.S. Environmental Protection Agency classifies as being of negligible photochemical reactivity, which includes: methane; ethane; methylene chloride; 1,1,1-trichloroethane (methyl chloroform); 1,1,1-trichoro-2,2,2-trifluoroethane trichlorofluoromethane CFC-11); (CFC - 113);dichlorodifluoromethane (CFC-12); chorodifluoromethane (CFC-22);trifluoromethane (FC-23);1,2-dichloro 1,1,2,2tetrafluoroethane (CFC-114); chloropentafluoroethane (CFC-115); 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123); 1,1,1,2tetrafluoroethane (HFC-134a); 1,1-dichloro 1-fluoroethane (HCFC-141b); 1-chloro 1,1-difluoroethane (HCFC-142b); 2chloro-1,1,1,2-tetrafluoroethane (HCFC-124); pentafluoroethane (HFC-125); 1,1,2,2-tetrafluoroethane (HFC-134); 1,1,1-trifluoroethane (HFC-152a); and perfluorocarbon compounds which fall into these classes - (1) cyclic, branched, or linear, completely fluorinated alkanes, (2)

cyclic, branched, or linear, completely fluorinated ethers with no unsaturations, (3) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and (4) sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 23, f. & ef. 11-12-92

Requirements

340-20-470

- (1) Sources of VOC and NOX subject to this rule shall annually submit data on the actual average emissions during the ozone season to the Department. Emission Statements submitted by the source to the Department shall contain the following information:
 - (a) Certification that the information contained in the statement is accurate to the best knowledge of the certifying individual.
 - (b) Source identification information: full name, physical location, mailing address of the facility, and Air Contaminant Discharge Permit number.
 - (c) Emissions information:
 - (A) Estimated actual VOC and/or NOx emissions for those emissions over 25 tons per year, on an average weekday basis during the preceding year's ozone season, by source category; and
 - (B) Calendar year for the ozone season; and
 - (C) Each emission factor used and reference source for the emission factor, if applicable, or indicate other estimation method or procedure used to calculate emissions (e.g., material balance, source test, or continuous monitoring).
- Sources subject to these rules shall keep records at the (2) plant site of the information used to calculate actual emissions pursuant to these rules. These records shall contain all applicable operating data, process rate data, and control equipment efficiency information and other information used to calculate or estimate actual emissions, and shall be available for the Department's review, or submitted upon request. Such records shall be kept by the source for three (3) calendar years after submittal of the emission statement.

Stat. Auth.: ORS 468A Hist.: AQ 23, f. & ef. 11-12-92

Submission of Emission Statement

340-20-480 The owner or operator of any facility meeting the applicability requirements stated in OAR 340-20-450 must submit annual Emission Statements to the Department beginning in 1993. The Emission Statement for the preceding calendar year is due to the Department no later than either February 28 or the due date for the annual permit report specified in the source's Air Contaminant Discharge Permit.

Stat. Auth.: ORS 468A Hist.: AQ 23, f. & ef. 11-12-92

<u>Major Source Interim Emission Fees</u>

[PURPOSE, SCOPE AND APPLICABILITY] Purpose, Scope And Applicability

340-20-500

(1) The purpose of <u>f these rules</u> OAR 340-20-500 through 340-20-<u>660</u> is to provide permittees, major sources, and the Department of Environmental Quality with the criteria and procedures to determine interim emissions and fees based on calculated (1991 only), actual and permitted air emissions only for calendar years 1991 and 1992.

NOTE:. These interim fees will be used to provide resources to cover the costs of the Department of Environmental Quality to develop an approvable federal operating permit program in accordance with the Federal Clean Air Act and ORS 468A.

- (2) [The rules]OAR 340-20-500 through 340-20-660 apply to major sources as defined in OAR 340-20-520{(14)}. The permittee may elect to pay interim emission fees on either calculated emissions (1991 only), actual emissions or permitted emissions for each assessable emission.
- (3) The interim emission fees are in addition to fees required by OAR 340-20-155 and 340-20-165.

NOTE: Assessment of fees for calendar years 1993 and beyond is subject to Environmental Protection Agency approval of the Title V program developed by the Department pursuant to Oregon Laws 1991 Chapter 752, ORS 468A, enacted by the 1991 Oregon Legislature in response to the federal Clean Air Act Amendments of 1990.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

{POLICY}

Policy

340-20-510 Considering that [these rules] OAR 340-20-500 through 340-20-660 are retroactive and that methods were not in place for determining actual emissions for fee purposes, the Environmental Quality Commission recognizes that special criteria are necessary to quantify emissions for 1991. More specific methods for data collection are consistent with the new requirements under the Clean Air Act Amendments of 1990 and appropriate for calendar year 1992 emissions.

Stat. Auth.: ORS Ch.<u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

{DEFINITIONS}

Definitions

340-20-520 As used in OAR 340-20-500 through 340-20-660, unless otherwise required by context:

- (1) "Actual Emission" means all emissions including but not limited to routine process emissions, fugitive emissions, excess emissions from maintenance, startups and shutdowns, equipment malfunctions, and other activities.
- (2) "Assessable Emission" means a unit of emissions for which the major source will be assessed a fee. It includes an emission of a pollutant as defined in OAR 340-20-530 from one emission point and from an area within a major source. For routine process emissions, emissions of each pollutant in OAR 340-20-530 from each emission point included in an air contaminant discharge permit shall be an assessable emission.
- (3) "Constant Process Rate" means the average variation in process rate for the calendar year is not greater than plus or minus ten percent of the average process rate.
- (4) "Continuous Monitoring Systems" means sampling and analysis, in a timed sequence, using techniques which will adequately reflect calculated emissions and actual emissions or concentrations on a continuing basis in accordance with the Department's Continuous Monitoring Manual, and includes continuous emission monitoring systems and continuous parameter monitoring systems.
- (5) "Calculated Emissions" means procedures used to estimate emissions for the 1991 calendar year.
- (6) "Department" means Department of Environmental Quality.

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- (7) "Emission" means a release into the atmosphere of any regulated pollutant.
- (8) "Emission Estimate Adjustment Factor (EEAF)" means an adjustment applied to an emission factor to account for the relative inaccuracy of the emission factor.
- (9) "Emission Factor" means an average value which relates the quantity of a pollutant released to the atmosphere with the activity associated with the release of that pollutant.
- (10) "Emission Reporting Form" means a paper or electronic form developed by the Department that shall be completed by the permittee to report calculated emissions, actual emissions or permitted emissions for interim emission fee assessment purposes.
- (11) "Fugitive Emissions" means emissions of any air contaminant which escape to the atmosphere from any point or area that is not identifiable as a stack, vent, duct, or equivalent opening.
- (12) "Interim Emission Fee" means \$13 per ton for each assessable emission subject to emission fees under OAR 340-20-530 for calculated, actual or permitted emissions released during calendar years 1991 and 1992.
- (13) "Late Payment" means an interim emission fee which is postmarked after the due date.
- (14) "Major Source" or "Source" means a permitted stationary source or group of stationary sources located within a contiguous area and under common control or any stationary facility or source of air pollutants which directly emits, or is permitted to emit:
 - (a) One hundred tons per year or more of any regulated pollutant, or
 - (b) Fifty tons per year or more of a volatile organic compound and is located in a serious ozone nonattainment area.
- (15) "Material Balance" means a procedure for determining emissions based on the difference in the amount of material added to a process and the amount consumed and/or recovered from a process.
- (16) "Particulate Matter" means all solid or liquid material, other than uncombined water, emitted to the ambient air as measured by a Department approved method in accordance with the Department's Source Sampling Manual.
- (17) "Permit" or "Air Contaminant Discharge Permit" means a written permit issued by the Department, pursuant to OAR 340-20-140 through 340-20-175 and includes the application review report.

- (18) "Permitted Emissions" means each assessable emission portion of the Plant Site Emission Limit.
- (19) "Person" means the United States Government and agencies thereof, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity.
- (20) "Plant Site Emission Limit (PSEL)" means the total mass emissions per unit time of an individual air pollutant specified in a permit for a major source. The PSEL may consist of more than one assessable emission.
- (21) "PM₁₀ Emissions" means emissions of finely divided solid or liquid material, other than uncombined water, with an aerodynamic diameter less than or equal to a nominal 10 micrometers, emitted to the ambient air as measured by applicable reference methods in accordance with the Department's Source Sampling Manual.
- (22) "Regulated Pollutant" means PM₁₀, Sulfur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Lead (Pb), Volatile Organic Compounds (VOC), and Carbon Monoxide (CO); and any other pollutant subject to a New Source Performance Standard (NSPS) such as Total Reduced Sulfur (TRS) from kraft pulp mills and Fluoride (F) from aluminum mills.
- (23) "Source Category" means a group of major sources determined by the Department to be using similar raw materials and having equivalent process controls and pollution control equipment.
- (24) "Source Test" means the average of at least three test runs during operating conditions representative of the period for which emissions are to be determined, conducted in accordance with the Department's Source Sampling Manual or other Department approved methods.
- (25) "Substantial Underpayment" means the lesser of ten percent (10%) of the total interim emission fee for the major source or five hundred dollars.
- (26) "Total Reduced Sulfur (TRS)" means the sum of the sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, and any other organic sulfides present expressed as hydrogen sulfide (H₂S).
- (27) "Verified Emission Factor" means an emission factor approved by the Department and developed for a specific major source or source category and approved for application to that major source by the Department.
- (28) "Volatile Organic Compound or "VOC" means any organic compound which participates in atmospheric photochemical reactions to form ozone; that is, any precursor organic

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compound which would be emitted during use, application, curing or drying of a surface coating, solvent, or other material. Excluded from this category are those compounds which the U.S. Environmental Protection Agency classifies as being of negligible photochemical reactivity which includes methane, ethane, methylene chloride, 1,1,1-trichloroethane (methyl chloroform), trichlorofluoromethane (CFC-11), dichlorofluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), trichlorotetrafluoroethane (CFC-114), and chloropentafluoroethane (CFC-115).

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

(POLLUTANTS SUBJECT TO INTERIM EMISSION FRES) Pollutants Subject to Interim Emission Fees

- 340-20-530
- (1) The Department shall assess interim emission fees on assessable emissions up to and including 4,000 tons per year of each of the following pollutants from each major source:
 - (a) PM_{10} or TSP as specified in section (2) of this rule,
 - (b) SO₂,
 - (c) NO_x^{-} ,
 - (d) VOĈ,
 - (e) Lead,
 - (f) Fluoride,
 - (g) TRS, and
 - (h) Any other pollutant subject to New Source Performance Standards.
- (2) If the interim emission fee on PM₁₀ emissions is based on the Plant Site Emission Limit for a source that does not have a Plant Site Emission Limit for PM₁₀, the Department shall assess the interim emission fee on the Plant Site Emission Limit for total suspended particulates.
- (3) The permittee shall determine each actual assessable emission separately.
- (4) The permittee shall pay interim emission fees on all assessable emissions from each emission source included in the permit or application review report.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

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[EXCLUSIONS] Exclusions 340-20-540

- The Department shall not assess interim emission fees on: (1)
 - Pollutants regulated solely as hazardous air pollutants (a) as defined in Section 112 of the federal Clean Air Act, and
 - Newly permitted major sources that have not begun . (b) initial operation.
 - (C) former permittee who has permanently ceased Α operation, as indicated by cancellation of the air contaminant discharge permit prior to the time of interim emission fee assessment by the Department.
- The Department shall not assess interim emission fees on (2) carbon monoxide. However, sources that emit or are permitted to emit 100 tons or more per year of carbon monoxide are subject to the interim emission fees on all other regulated pollutants regardless of the amount of emissions of those regulated pollutants.
- The Department shall not assess interim emission fees if (3) there are no emissions from an assessable emission for the entire calendar year.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: AQ 14, f. & ef. 1-23-92

FREFERENCES

References

340-20-550 Reference documents used in OAR 340-20-500 through 340-20-660 include the Department of Environmental Quality Source Sampling Manual and the Department of Environmental Quality Continuous Monitoring Manual.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: AQ 14, f. & ef. 1-23-92

FELECTION FOR EACH ASSESSABLE EMISSION FOR 1991 AND 1992 Election For Each Assessable Emission For 1991 And 1992 340-20-560

- The permittee shall make an election to pay interim emission (1)fees on either calculated emissions (1991 only), actual emissions or permitted emissions for each year for each

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assessable emission and notify the Department in accordance with OAR 340-20-580.

- (2) For calendar year 1991 the permittee shall elect to pay interim emission fees on either:
 - (a) Calculated emissions, OAR 340-20-590,
 - (b) Permitted emissions, OAR 340-20-570 and 340-20-580, or
 - (c) Actual emissions, OAR 340-20-570, 340-20-580 and 340-20-600.
- (3) For calendar year 1992 the permittee shall elect to pay interim emission fees on either:
 - (a) Actual emissions, OAR 340-20-570, 340-20-580, and 340-20-600, or
 - (b) Permitted emissions, OAR 340-20-570 and 340-20-580.
- (4) If a permittee fails to notify the Department of the election for an assessable emission, the Department shall assess interim emission fees for the assessable emission based on permitted emissions.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[EMISSION REPORTING] Emission Reporting 340-20-570

- (1) For the purpose of assessing interim emission fees the permittee shall submit the following information on an Emission Reporting Form(s) developed by the Department for each assessable emission in tons per year, reported as follows:
 - (a) PM_{10} as PM_{10} ,
 - (b) Sulfur Dioxide as SO₂,
 - (c) Oxides of Nitrogen (NO_{y}) as Nitrogen Dioxide (NO_{2}) ,
 - (d) Total Reduced Sulfur (TRS) as H_2S in accordance with OAR 340-25-150(15),
 - (e) Volatile Organic Compounds (VOC) as:
 - (A) VOC for material balance emission reporting, or (B) Propane (C_3H_8) , unless otherwise specified by permit, or [Oregon Administrative Rules] OAR <u>Chapter 340</u>, or a method approved by the Department, for emissions verified by source testing.
 - (f) Fluoride as F.
 - (g) Lead as Pb.
- (2) The permittee electing to pay interim emission fees on actual and calculated emissions shall report emissions as follows:

- (a) Round up to the nearest whole ton for emission values 0.5 and greater, and
- (b) Round down to the nearest whole ton for emission values less than 0.5.
- (3) The permittee electing to pay interim emission fees on either actual or calculated emissions shall:
 - (a) Submit complete information on the Emission Reporting Forms including all assessable emissions, emission points and sources, and
 - (b) Submit documentation necessary to support emission calculations.
- (4) The permittee electing to pay on calculated (1991 only) or actual emissions for an assessable emission shall report total emissions including those emissions in excess of 4,000 tons for each assessable emission.
- (5) The permittee electing to pay on permitted emissions for an assessable emission shall submit a statement to the Department that they shall pay on the Plant Site Emission Limit in effect for the calendar year in which they are paying, in accordance with OAR 340-20-570 and 340-20-580.
- (6) If more than one permit is in effect for a calendar year for a major source, the permittee electing to pay on permitted emissions shall pay on the Plant Site Emission Limit(s) in effect for each day of that calendar year.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[EMISSION REPORTING AND INTERIM FEE PROCEDURES] Emission Reporting And Interim Fee Procedures 340-20-580

- (1) The permittee shall submit the original Emission Reporting Form(s), including the permittees election for each assessable emission, to the Department by the later of either February 28 or the due date for the annual permit report for the previous calendar year.
- (2) The permittee may request that information, other than emission information, submitted pursuant to OAR 340-20-500 through 340-20-660 be treated as confidential by the Department in accordance with <u>Oregon Revised Statutes</u><u>] ORS</u> 192.410 through 192.505.
- (3) The permittee shall allow the Department representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and

otherwise conducting all necessary functions related to the interim emission fees. The permittee shall maintain all records on site for two years from the date specified in Section (6) of this rule.

- (4) The Department may accept information submitted or request additional information from the permittee. The permittee shall submit additional calculated or actual emission information requested by the Department within thirty (30) days of receiving a request from the Department. The Department may approve a request from a permittee for an extension of time of up to thirty days to submit additional information under extenuating circumstances.
- If the Department determines the actual or calculated emission information submitted for any assessable emission (5) does not meet the criteria in OAR 340-20-500 through 340-20-660, the Department shall assess the interim emission fee on the permitted emission for that assessable emission.
- The permittee shall submit interim emission fees payable to (6)the Department by the later of:
 - July 1 for interim emission fees from the previous (a) calendar year, or
 - Thirty (30) days after the Department mails the interim (b) emission fee invoice.
- (7)Department acceptance of interim emission fees shall not indicate approval of data collection methods, calculation methods, or information reported on Emission Reporting Forms. If the Department determines initial interim emission fee assessments were inaccurate or inconsistent with OAR 340-20-500 through 340-20-660, the Department may assess or refund interim emission fees up to two years after interim emission fees are received by the Department. The Department shall not revise a Plant Site Emission Limit
- (8) solely due to an interim emission fee payment.
- Permittees operating major sources pursuant to OAR 340-22-100 (9) through OAR 340-22-220 may submit the emission reporting information in the annual permit report format provided that:
 - The permittee receives Department approval prior to the (a) annual permit report due date and prior to February 28 of the year the fee is due,
 - (b) The report is received by the Department by the due date specified in the permit, and
 - All information required by OAR 340-20-500 through 340-(C) 20-660 is provided, including an indication of whether the permittee is electing to pay on permitted, calculated, or actual emissions for each assessable emission.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[CALCULATED EMISSIONS FOR 1991]

Calculated Emissions For 1991

340-20-590 To calculate actual emissions for 1991, the permittee shall use one of the following methods:

- (1) OAR 340-20-650(9), and:
 - (a) The emission factor(s) and other criteria used by the Department and documented in the permit or application review report to establish Plant Site Emission Limits to calculate assessable emission(s), or
 - (b) Emission Factors developed from at least one Department approved source test conducted since 1985.
- (2) Material balance data.
- (3) Emission data from a continuous monitoring system if:
 - (a) The system was installed and maintained and is capable of continuously monitoring pollutant emissions,
 - (b) Emissions data were recorded at a minimum of once per hour, and
 - (c) Data completeness was at least ninety percent (90%) of the scheduled operating time based on hourly data, otherwise OAR 340-20-610(2) shall be used to determine emissions.
- (4) Alternative emission factors approved by the Department as more representative of actual source configuration and operation in 1991, provided that the alternative factors are at least as accurate as methods used for compliance demonstration.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[ACTUAL EMISSIONS FOR 1992]

Actual Emissions For 1992

340-20-600 A permittee electing to pay on actual emissions for calendar year 1992 emissions shall obtain emission data and determine emissions using one of the following methods:

- (1) Continuous monitoring systems used in accordance with OAR 340-20-610,
- (2) Verified emission factors developed for that particular source in accordance with OAR 340-20-650 for:,
 - (a) Each assessable emission, or
 - (b) A combination of assessable emissions if there are multiple sources venting to the atmosphere through one common emission point (eg. stack). The permittee shall

have a verified emission factor plan approved by the Department prior to conducting the source testing in accordance with OAR 340-20-650,

- (3) Material balances determined in accordance with OAR 340-20-620, OAR 340-20-630, or OAR 340-20-640, or
- (4) Verified emission factors for source categories developed in accordance with OAR 340-20-650(11).

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[DETERMINING EMISSIONS FROM CONTINUOUS MONITORING SYSTEMS FOR 1992] Determining Emissions From Continuous Monitoring Systems For 1992 340-20-610

- (1) If the permittee elects to report emission data using monitoring systems, the permittee shall use a monitor installed and operated in accordance with the Department's Continuous Monitoring Manual for data collected from April 1, 1992 through December 31, 1992. For data collected from January 1, 1992 through March 31, 1992, the permittee shall use data collected in accordance with permit conditions, applicable[-Department] rules in OAR Chapter 340, or the Department's Continuous Monitoring Manual.
- (2) If the permittee has continuous monitoring data that comprises less than ninety percent (90%) of the plant operating time, the actual emissions during the period when the continuous monitoring system was not operating shall be determined from 90 percentile continuous monitoring data.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[DETERMINING EMISSIONS USING MATERIAL BALANCE FOR 1992] Determining Emissions Using Material Balance For 1992

340-20-620 The permittee may elect to use material balance to determine actual emissions:

(1) If the amount of material added to a process less the amount consumed and/or recovered from a process can be documented in accordance with Department approved permit procedures and in accordance with OAR 340-20-500 through 340-20-660.

(2) The permittee shall only apply material balance calculations to VOC or sulfur dioxide emissions in accordance with OAR 340-20-630 and OAR 340-20-640 respectively.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

{DETERMINING VOLATILE ORGANIC COMPOUND EMISSIONS USING MATERIAL BALANCE FOR 1992]

Determining Volatile Organic Compound Emissions Using Material Balance For 1992

340-20-630 The permittee may determine the amount of VOC emissions for an assessable emission by using material balance.

(1) The permittee using material balance to calculate VOC emissions shall determine the amount of VOC added to the process, the amount of VOC consumed in the process and/or the amount of VOC recovered in the process by testing in accordance with 40 Code of Federal Regulations (CFR) Part 60 EPA Method 18, 24, 25, a material balance method, or an equivalent plant specific method specified in the Air Contaminant Discharge Permit using the following equation:

$$VOC_{tot} = VOC_{add} - VOC_{cons}$$

Where:

VOC _{tot}		Total VOC emissions, tons
VOCadd	=	VOC added to the process, tons
VOC _{cons}	=	VOC consumed and/or recovered from the process, tons

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[DETERMINING SULFUR DIOXIDE EMISSIONS USING MATERIAL BALANCE FOR 1992] Determining Sulfur Dioxide Emissions Using Material Balance For 1992

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340-20-640

- Sulfur dioxide emissions for major sources may be determined by measuring the sulfur content of fuels and assuming that all of the sulfur in the fuel is oxidized to sulfur dioxide.
 The permittee shall use ASTM methods to measure the sulfur
- (2) The permittee shall use ASTM methods to measure the sulfur content in fuel for each quantity of fuel burned.
 (3) The permittee shall determine sulfur dioxide emissions for
- (3) The permittee shall determine sulfur dioxide emissions for each quantity of fuel burned, determining quantity by a method that is reliable for that source, by performing the following calculation:

$$SO_{2} = \frac{S}{100 \times F \times 2}$$

Where:

so ₂	=	Sulfur dioxide emissions for each quantity of fuel, tons			
%S	=	Percent sulfur in the fuel being burned, % (w/w).			
F	=	Amount of fuel burned, based on a quantity measurement, tons			
2	<u></u>	Pounds of sulfur dioxide per pound of sulfur			

(4) For coal-fired steam generating units the following equation shall be used by permittees to account for sulfur retention:

 $SO_{2adi} = SO_2 \times 0.97$

Where:

SO_{2adj}

SO, .

- Sulfur dioxide adjusted for sulfur retention (40 CFR Part 60, Appendix A, Method 19, Section 5.2)
- = Sulfur dioxide emissions from each quantity burned (OAR 340-20-640(3))
- (5) Total sulfur dioxide emissions for the year shall be the sum total of each quantity burned calculated in accordance with <u>OAR</u> 340-20-640(3) divided by 2000 pounds per ton.

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(6) The permittee shall keep records of the fuel received and consumed and the quantity and sulfur content for two years from the date specified in OAR 340-20-580(6).

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[VERIFIED EMISSION FACTORS USING SOURCE TESTING] Verified Emission Factors Using Source Testing 340-20-650

- (1) To verify emission factors used to determine assessable emissions the permittee shall:
 - (a) Utilize source testing data collected in accordance with appropriate procedures or Department guidance in effect at the time the data was collected, for source test data collected from 1985 through 1991, or
 - (b) Perform source testing in accordance with the Department's Source Sampling Manual or other methods approved by the Department for source tests conducted in 1992. Source tests shall be conducted in accordance with testing procedures on file at the Department and the pretest plan submitted at least fifteen (15) days in advance and approved by the Department. All test data and results shall be submitted for review to the Department within thirty (30) days after testing.

NOTE: It is recommended that the permittee notify the Department and obtain pre-approval of the Emission Factor source testing program prior to or as part of the submittal of the first source test notification.

- (2) The permittee shall conduct or have conducted at least three compliance source tests each consisting of at least three individual test runs for a total of at least nine test runs.
- (3) The permittee shall monitor and record or have monitored and recorded applicable process and control device operating data.
- (4) The permittee shall perform or have performed a source test either:
 - (a) In each of three quarters of the year with no two successive source tests performed any closer than thirty (30) days apart, or

- (b) At equal intervals over the operating period if the permittee demonstrates and the Department approves that:
 - (A) The process operates or has operated for part of the year, or
 - (B) The process is or was not subject to seasonal variations.
- (5) The permittee shall conduct or have conducted the source tests to test the entire range of operating levels. At least one test shall be conducted at minimum operating conditions, one test at normal or average operating levels, and one test at anticipated maximum operating levels. If the process rate is constant, all tests shall be conducted at that rate. The permittee shall submit documentation to the Department demonstrating a constant process rate.
- (6) The permittee shall determine or have determined an emission factor for each source test by dividing each test run emissions, in pounds per hour, by the applicable process rate during the source test run. At least nine emission factors shall be plotted against the respective process rates and a regression analysis performed to determine the best fit equation and the correlation coefficient (R²). If the correlation coefficient is less than 0.50, which would indicate that there is a relatively weak relationship between emissions and process rates, the arithmetic average and standard deviation of at least nine emission factors shall be determined.
 -) The permittee shall determine the Emissions Estimate Adjustment Factor (EEAF) as follows:
 - (a) If the correlation coefficient (R^2) of the regression analysis is greater than 0.50, the EEAF shall be $1+(1-R^2)$.
 - (b) If the correlation coefficient (R^2) is less than 0.50, the EEAF shall be:

 $EEAF = 1 + SD/EF_{avg}$

Where:

SD = Standard Deviation

 EF_{avo} = Average of the Emission Factors

(8) The permittee shall determine actual emissions for interim emission fee purposes using one of the following methods:

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(7)

(a) If the regression analysis correlation coefficient is less than 0.50, the actual emissions shall be the average emission factor determined from at least nine test runs multiplied by the EEAF multiplied by the total production for the entire year, or

Where:

AE	=	Actual Emissions		
EF_{avg}	=	Average of the Emission Factors		
EEAF	=	Estimated Emissions Adjustment Factor		
Р	=	Total production for the year		

- (b) If the regression analysis correlation coefficient is greater than 0.50 the following calculations shall be performed:
 - (A) Determine the average emission factor (EF) for each production rate category (maximum = EF_{max} , normal = EF_{max} , and minimum = EF_{max}).
 - normal = EF_{norm}, and minimum = EF_{min}).
 (B) Determine the total annual production and operating hours, production time (PT_{tot}), for the calendar year.
 - (C) Determine the total hours operating within the maximum production rate category (PT_{max}) . The maximum production rate category is any operation rate greater than the average of at least three maximum operating rates during the source testing plus the average of at least three normal operating rates during the source testing divided by two (2).
 - (D) Determine the total hours while operating within the normal production rate category (PT_{norm}). The normal production rate category is defined as any operating rate less than the average of at least three maximum operating rates during the source testing plus the average of at least three normal operating rates during the source testing divided by two (2) and any operating rate greater than the average of at least three minimum operating rates during the source

testing plus the average of at least three normal operating rates during the source testing divided by two (2).

- (E) Determine the total hours while operating within the minimum production rate category (PT_{min}) . The minimum production rate category is defined as any operating rate less than the average of at least three minimum operating rates during the source testing plus the average of at least three normal operating rates during the source testing divided by two (2).
- Actual emissions equals EEAF x [PT_{max}/PT_{tot}) xEF_{max} (F)

+ (PT_{norm}/PT_{tot})xEF_{norm} + (PT_{min}/PT_{tot})xEF_{min}]. The permittee shall determine emissions during startup and shutdown, and for emissions greater than normal, during conditions that are not accounted for in the procedure(s) otherwise used to document actual emissions.

(a) A11 emissions during startup and shutdown, and emissions greater than normal shall be assumed equivalent to operation without an air pollution control device, unless accurately demonstrated by the permittee and approved by the Department in accordance with OAR 340-20-650(9)(b), (9)(c), (9)(d), and (9)(e). The emission factor plus the EEAF shall be adjusted by the air pollution control device collection efficiency as follows:

Actual emission factor = (EF x EEAF)/(1 - PCDE)

Where:

EF	-	Emission Factor				
EEAF	=	Emission Estimate Adjustment Factor				
PCDE	-	Pollution Control Device Collection Efficiency				

Unless otherwise approved by the Department, the pollution control device collection efficiencies used in this calculation shall be:

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(9)

Particulate Matter:

ESP or baghouse	0.90
High energy wet scrubber	0.80
Low energy wet scrubber	0.70
Cyclonic separator	0.50

Acid gases:

Wet or dry scrubber 0.90

Volatile Organic Compounds:

Incinerator 0.98

Carbon absorber 0.95

- (b) During process startups a Department approved source test shall be performed to determine an average startup factor. The average of at least three tests runs plus the standard deviation shall be used to determine actual emissions during startups.
- (c) During process shutdowns a Department approved source test shall be performed to determine an emission factor for shutdowns. The average of at least three test runs plus the standard deviation shall be used to determine actual emissions during shutdowns.
- (d) During routine maintenance activity the permittee shall:
 - (A) Perform routine maintenance activity during source testing for verified emission factors, or
 - (B) Determine emissions in accordance with Section (10) of this rule.
- (e) The emission factor need not be adjusted if the permittee demonstrates to the Department that the pollutant emissions do not increase during startup and shutdown, and for conditions that are not accounted for the in procedure(s) otherwise used to document actual emissions (eg. NO, emissions during an ESP failure).
- (10) A verified emission factor developed pursuant to OAR 340-20-500 through 340-20-660 and approved by the Department can not be used if a process change occurs that would affect the accuracy of the verified emission factor.
- (11) The permittee may elect to use verified emission factors for source categories if the Department determines the following criteria are met:

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- (a) The verified emission factor for a source category shall be based on verified emission factors from at least three individual sources within the source category,
- (b) Verified emission factors from sources within a source category shall be developed in accordance with OAR 340-20-650,
- (c) The verified emission factors from the sources shall not differ from the mean by more than twenty percent, and
- (d) The source category verified emission factor shall be the mean of the source verified emission factors plus the average of the source emission estimate adjustment factors.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 14, f. & ef. 1-23-92

[LATE AND UNDERPAYMENT INTERIM EMISSION FEES] Late And Underpayment Interim Emission Fees 340-20-660

(1) Notwithstanding any enforcement action, the permittee shall

- be subject to a late payment fee of: (a) Two hundred dollars (\$200) for payments postma
- (a) Two hundred dollars (\$200) for payments postmarked more than seven (7) or less than thirty (30) days late, and
 (b) Four bundred dollars (\$400) for payments postmarked or
- (b) Four hundred dollars (\$400) for payments postmarked on or over thirty (30) days late.
- (2) Notwithstanding any enforcement action, the Department may assess an additional fee of the greater of four hundred (\$400) or twenty percent (20%) of the amount underpaid for substantial underpayment.

TABLE 1 AIR CONTAMINANT SOURCES AND ASSOCIATED FEE SCHEDULE (340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

Α.			leling Review Screening methodology \$ 500		E. Alternative Emission Control Review - \$1,500	
	b) > 30 days			\$ 500 \$1,000	Keview - \$1,500	

B. BACT/LAER Determination - \$12,500 each C. Ambient Monitoring Network Review - \$90

F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

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NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing Fee	Application Processing Fee	Annual Compliance Determination Fee
1.	Seed cleaning located in special control areas, commercial operations only (not elsewhere included)	0723	75	400	610
2.	Reserved				
3.	Flour and other grain mill products in special control areas a) 10,000 or more tons/yr b) Less than 10,000 tons/yr	2041	75 75	1300 1000	1200 515
4.	Cereal preparations in special control areas	2043	75	1300	865
5.	Blended and prepared flour in special control areas a) 10,000 or more tons/yr b) Less than 10,000 tons/yr	2045	75 75	1300 1000	865 500
6.	Prepared feeds for animals and fowl in special control areas a) 10,000 or more tons/yr b) Less than 10,000 tons/yr	2048	75 75	1300 800	1200 945
7.	Beet sugar manufacturing	2063	75	1700	5955
8.	Rendering plants a) 10,000 or more tons/yr input b) Less than 10,000 tons/yr input	2077	75 75	1600 1200	1920 1040
9.	Coffee roasting, 30 tons/yr or more roasted product	2095	75	800	785
10.	Sawmills and/or planing mills a) 25,000 or more bd.ft./ shift finished product b) Reserved	2421, 2426	75	800	1200
11.	Reserved				

12. Reserved

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TABLE 1

AIR CONTAMINANT SOURCES AND ASSOCIATED FEE SCHEDULE (340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

A.	Late Payment a) 8-30 days \$200 b) > 30 days \$400	D. Modeling Review a) Screening methodology \$ 5 b) Refined methodology \$1,0	•

B. BACT/LAER Determination - \$12,500 each C. Ambient Monitoring Network Review - \$90 F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Aîr Contaminant Source		Standard Industrial Classification Number (Reference Only)	Filing Fee	Application Processing Fee	Annual Compliance Determination Fee
	<pre>Millwork (including structural wood members), 25,000 or more bd.ft./shift input Plywood manufacturing and/or veneer drying a) 25,000 or more sq.ft./hr, 3/8" basis finished product b) 10,000 or more but less than 25,000 sq.ft./hr, 3/8" basis finished product c) Less than 10,000 sq.ft./hr, 3/8" basis finished product</pre>	· 2431, 2439 2435, 2436	75 75 75 75	600 2500 1800 600	945 2420 1635 865
15.	Reserved				
16.	waterborne)	2491	75	1000	960
17.	(including strandboard, flakeboard and waferboard) a) 10,000 or more sq.ft./hr, 3/4" basis finished product b) Less than 10,000 sq.ft./hr, 3/4" basis finished product	2493	75 75	2500 1200	2850 1360
18.	 Hardboard manufacturing (including fiberboard) a) 10,000 or more sq.ft./hr, 1/8" basis finished product b) Less than 10,000 sq.ft./hr, 1/8" basis finished product 	2493	75 75	2500 1200	2340 1200
19.	Battery separator mfg.	2499	75	1000	2080

TABLE 1 AIR CONTAMINANT SOURCES AND

ASSOCIATED FEE SCHEDULE

(340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

Α.	. Late Payment D. Modeling Review		E. Alternative	Emission Control
	a) 8-30 days \$2	200 a) Screening methodology	\$ 500 Review - \$1	,500
	b) > 30 days \$4	400 b) Refined methodology	\$1,000	

BACT/LAER Determination - \$12,500 each
 C. Ambient Monitoring Network Review - \$90

F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing Fee	Application Processing Fee	Annual Compliance Determination Fee
20.	Furniture and fixtures a) 25,000 or more bd.ft./ shift input b) Reserved	2511	75	600	945
21.	Pulp mills, paper mills, and paperboard mills a) Kraft, sulfite, & neutral sulfite only b) Other - 100 tons or more of emissions	2611, 2621, 2631	75 75	5000 5000	10355 10355
22.	Building paper and building- board mills	2621, 2493	75	800	785
23.	Alkalies and chlorine mfg. a. High cost b. Low cost	2812	75 75	2450 1400	2750 2065
24.	Calcium carbide manufacturing a. High cost b. Low cost	2819	75 75	2625 1500	2750 2065
25.	Nitric acid manufacturing a. High cost b. Low cost	2819	75 75	1750 1000	1385 1040
	Ammonia manufacturing a. High cost b. Low cost	2819	75 75	1750 1000	1600 1200
27.	Industrial inorganic and organic chemicals manufacturing (not elsewhere included) a. High cost b. Low cost	2819, 2869	75 75	2275 1300	1960 1475

TABLE 1

AIR CONTAMINANT SOURCES AND ASSOCIATED FEE SCHEDULE

(340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

Α.	. Late Payment D. Modeli			D. Modeling Review	ling Review		
	a)	8-30 days	\$200	 a) Screening method 	dology \$ 500		
	b)	> 30 days	\$400	b) Refined methodo	ology \$1,000		

E. Alternative Emission Control Review - \$1,500

BACT/LAER Determination - \$12,500 each
 C. Ambient Monitoring Network Review - \$90

F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing Fee	Application Processing Fee	Annual Compliance Determination Fee
28.	Synthetic resin manufacturing a. High cost b. Low cost	2821	75 75	1750 1000	1600 1200
29.	Charcoal manufacturing	2861	75	1400	2500
30.	Pesticide manufacturing	2879	75	2500	10355
31.	Petroleum refining a) Refining, general b) Asphalt production by distillation	2911	75 75	5000	10355
32.	Reserved		12		
33.	Asphalt blowing plants	2952	75	1000	1555
34.	Asphaltic concrete paving plants a) Stationary b) Portable	2951	75 75	500 500	590 750
35.	Asphalt felts or coating	2952	75	500	900
36.	Redefining of lubricating oils and greases, and reprocessing of oils and solvents for fuel	2992	75	900	1120
37.	Glass container manufacturing	3221	75	1000	1475
38.	Cement manufacturing	3241	75	3200	7585
39.	Concrete manufacturing, including redimix and CTB	3271, 3272, 3273	75	200	320
40.	Lime manufacturing	3274	75	1500	785
41.	Gypsum products	3275	75	800	. 865

TABLE 1 AIR CONTAMINANT SOURCES AND ASSOCIATED FEE SCHEDULE (340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

Α.	Late Payment D. a) 8-30 days \$200 b) > 30 days \$400	. Modeling Review a) Screening methodology \$ 500 b) Refined methodology \$1,000	E. Alternative Emission Control Review - \$1,500
		412 F00	

BACT/LAER Determination - \$12,500 each
 C. Ambient Monitoring Network Review - \$90

F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing Fee	Application Processing Fee	Annual Compliance Determination Fee
42.	Rock crusher a) Stationary b) Portable	1442, 1446, 3295	75 75	450 450	590 750
43.	Steel works, rolling and finishing mills, electro- metallurgical products	3312, 3313	75	2500	2065
44.	Incinerators a) 250 or more tons/day	4953			
	capacity or any off-site infectiou waste incinerator	IS	75	12000	5170
	 b) 50 or more but less than 250 tons/day capacity c) 2 or more but less than 		75	3000	1570
	50 tons/day capacity d) Crematoriums and pathological		75	500	610
	waste incinerators, less than 2 tons/day capacity		75	500	610
	e) PCB and/or hazardous waste incinerator		75	12000	5170
45.	Gray iron and steel foundries, Malleable iron foundries, Steel investment foundries, Steel Foundries (not else- where classified)	3321, 3322, 3324,			
	a) 3,500 or more tons/yr productionb) Less than 3,500 tons/yr production	3325	75 75	2500 600	1810 945
46.	Primary aluminum production	3334	75	5000	10355
47.	Primary smelting of zirconium or hafnium	3339	75	5000	10355

TABLE 1 AIR CONTAMINANT SOURCES AND ASSOCIATED FEE SCHEDULE (340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

Α.	Late Payment	D. Modeling Review	E	. Alternative Emission Control
	a) 8-30 days \$200 b) > 30 days \$400	 a) Screening methodology \$ b) Refined methodology \$ 	500 1.000	Review - \$1,500
	b) > 50 daya 0400	by Refined including y	1,000	

B. BACT/LAER Determination - \$12,500 each C. Ambient Monitoring Network Review - \$90 F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing Fee	Application Processing Fee	Annual Compliance Determination Fee
				i.	
48.	Primary smelting and refining of ferrous and nonferrous metals (not elsewhere classified) a) 2,000 or more tons/yr production b) Less than 2,000 tons/yr production	3331, 3339	75 75	2500 500	4480 1730
49.	Secondary smelting and refining of nonferrous metals, 100 or more tons/yr metal charged	3341	75	1200	1200
50.	Nonferrous metals foundries, 100 or more tons/yr metal charged	3363, 3364, 3365, 3366, 3369	75	600	1040
51.	Reserved				
52.	Galvanizing and pipe coating (excluding all other activities)	3479	75	500	785
53.	Battery manufacturing	3691	75	600	1040
54.	Grain elevators, intermediate storage only, located in special control areas (not elsewhere classified) a) 20,000 or more tons/yr grain	4221			
	processed b) Less than 20,000 tons/yr grain		75	900	1635
	processed		75	500	785
55.	Electric power generation a) Wood or Coal Fired, 25 MW or more b) Reserved	4911*	75	20000	10355
	c) Oil or Natural Gas Fired, - 25 MW or more		75	1800	2500

TABLE 1 AIR CONTAMINANT SOURCES AND ASSOCIATED FEE SCHEDULE (340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

Α.	. Late Payment D. Modeling Review			. Alternative Emission Control	
	a) 8-30 days \$ b) > 30 days \$		eening methodology	\$ 500 \$1,000	Review - \$1,500
	57 - 50 uuys 4		Thea methodology	01,000	

B. BACT/LAER Determination - \$12,500 each C. Ambient Monitoring Network Review - \$90 F. Non-technical permit modification

(name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing Fe	Application Processing Fee	Annual Compliance Determination Fee
56.	Fuel burning equipment for Gas production and/or distribution,	4922, 4925			
	 10 million or more Btu/hr heat input a) Natural gas transmission b) Natural gas production and/or mfg. 	- ·	75 75	1900 1900	1200 1200
57.	Grain elevators, terminal elevators primarily engaged in buying and/or marketing grain, in special control areas 5153 a) 20,000 or more tons/yr grain processed b) Less than 20,000 tons/yr grain		75	2500	2065
58.	processed Fuel Burning equipment within the boundaries of the Portland and Medford- Ashland Air Quality Maintenance Areas, Salem Area Transportation Study Boundary, and Grants Pass Klamath Falls, and LaGrange Utban fuel burning Growth Areas		75 Il be based nt at the si	700 aggregate heat	785 , input of all
	 a) Residual or distillate oil fired, 250 million or more Btu/hr heat in b) Residual or distillate oil fired, 10 or more but less than 250 million Btu/hr heat input. c) Reserved 	put	75 75	1600 1000	1570 865
59.	Fuel Burning equipment within the boundaries of the Portland and Medford- Ashland Air Quality Maintenance Areas, Salem Area Transportation Study Boundary, and Grants Pass Klamath Falls, and LaGrande Urban fuel burning Growth Areas ,		ll be based nt at the si	aggregaté heat	input of all

TABLE 1 AIR CONTAMINANT SOURCES AND

ASSOCIATED FEE SCHEDULE

(340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

A. Late Paymen	t	D. Mode	ling Review		Ε.	Alternative Emission Control
a) 8-30 da b) > 30 da		-	Screening methodology Refined methodology	500 ,000		Review - \$1,500

~

B. BACT/LAER Determination - \$12,500 eachC. Ambient Monitoring Network Review - \$90

F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing	Fee	Application Processing Fee	Annual Compliance Determination Fee
	 a) Wood or coal fired, 35 million or more Btu/hr heat input b) Wood or coal fired, less than 35 million Btu/hr heat input 		75 75		1600 400	1570 865
60.	Fuel Burning equipment outside the boundaries of the Portland and Medford- Ashland Air Quality Maintenance Areas, Salem Area Transportation Study Boundary, and Grants Pass Klamath Falls, and LaGrange Urban fuel burning Growth Areas ,	4961 (Fees will equipment	be base		l aggregate heat	
	All oil fired 30 million or more Btu/hr heat input, and all wood and coal fired 10 million or more Btu/hr heat input		75		1000	865
61.	Sources installed in or after 1971 not listed herein which would emit 10 or more tons/yr of any air contaminants including but not limited to particulates, SD., or Volatile Organic Compounds (VOC), if the source were to operate uncontrolled. a) High cost b) Medium cost c) Low cost	any	75 75 75		9000 2500 600	6400 1120 480
62.	Sources installed in or after 1971 not listed herein which would emit significant malodorous emissions, as determined by Departmental review of sources which a re known to have similar air contaminant emissions. a) High cost	any	75		9000 ·	6400

TABLE 1

AIR CONTAMINANT SOURCES AND ASSOCIATED FEE SCHEDULE (340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

Α.	Late Payment	D. Modeling Review	E. Alternative Emission Control
•	a) 8-30 days		
	b) > 30 days	\$400 b) Refined methodology	\$1,000
Β.	BACT/LAER Dete	rmination - \$12,500 each	F. Non-technical permit modificat

C. Ambient Monitoring Network Review - \$90

F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing Fee	Application Processing Fee	Annual Compliance Determination Fee
	b) Medium cost c) Low cost		75 75	2500 600	1120 480
63.	sources not listed herein for which an air quality problem is identified by the Department		15		400
	a) High cost b) Medium cost c) Low cost	апу	75 75 75	9000 2500 600	6400 1120 480
64.	Bulk Gasoline Plants regulated by OAR 340-22-120	5171	75	400	515
65.	Bulk Gasoline Terminals	5171	75	4000	1730
66.	Liquid Storage Tanks, 39,000 gallons or more capacity, regulated by OAR 340-22-160 (not elsewhere included)	5169, 5171	75	200/tank	355/tank
67.	**** Can or drum Coating a) 50,000 or more units/mo. b) Less than 50,000 units/mo.	3411, 3412	75 75	6000 400	3105 690
68.	Paper or other substrate Coating ,	3861	75	6000	3105
69.	Coating Flat Wood regulated by OAR 340-22-200	2435	75	2000	1040
70.	Surface Coating, Manufacturing a) 100 or more tons VOC/yr b) 10 or more but less than 100 tons VOC/yr c) less than 10 tons VOC/yr	any	75 75 75	2000 600 200	1380 690 290
	(at sources' request)		61	200	270

TABLE 1 AIR CONTAMINANT SOURCES AND

ASSOCIATED FEE SCHEDULE

(340-20-155)

NOTE: Fees in A-F are in addition to any other applicable fees

Α.	Late Payment	D. Modeling Review		E. Alternative Emission Control
	a) 8-30 days \$200	a) Screening methodology		Review - \$1,500
	b) > 30 days \$400	b) Refined methodology	\$1,000	

B. BACT/LAER Determination - \$12,500 each C. Ambient Monitoring Network Review - \$90 F. Non-technical permit modification (name change, ownership transfer, and similar) - \$50

NOTE: Persons who operate boilers shall include fees as indicated in Items 58, 59, or 60 in addition to fee for other applicable category.

Air	Contaminant Source	Standard Industrial Classification Number (Reference Only)	Filing Fee	Application Processing Fee	Annual Compliance Determination Fee
				-	
71.	Flexographic or Rotogravure printing, 60 or more tons VOC/yr per plant	2754, 2759	75	2250	2000
72.	Reserved				
73.	Sources subject to NESHAPS rules (except demolition and renovation)	any	75	400	500
74.	Sources requiring toxic air pollutant review (not elsewhere classified)	any	75	1000	960
75.	Soil Remediation Plants a) Stationary b) Portable	1799	75 75	1000 1000	945 1200

** Excluding hydro-electric and nuclear generating projects.
*** Including co-generation facilities of less than 25 megawatts. ***

*** Legal descriptions and maps of these areas are on file in the Department.

Permit for sources in categories 64 through 71 are required only if the source is located in the Portland AQMA, Medford-Ashland AQMA or Salem SATS.

EMISSION STANDARDS AND REGULATIONS

DIVISION 21

GENERAL EMISSION STANDARDS FOR PARTICULATE MATTER

[ED. NOTE: Administrative Order DEQ 16 repealed previous rules OAR 340-21-005 through 340-21-031 (consisting of AP 1, filed 1-14-57; and SA 16, filed 2-13-62).]

Definitions

340-21-005 As used in OAR 340-21-005 through 340-21-060:

- (1) "Coastal Areas" means Clatsop, Tillamook, Lincoln, Coos, and Curry Counties and those portions of Douglas and Lane County west of Range 8 West, Willamette Meridian.
- (2) "Fuel burning equipment" means equipment, other than internal combustion engines, the principal purpose of which is to produce heat or power by indirect heat transfer.
- (4) (3) "Municipal Waste Incinerator" means a device used to reduce the volume of general household wastes by combustion which is capable of processing more than 200 lb/hr of such wastes but which is too small to be classed as a major source as defined by the Department's New Source Review rule, OAR 340-20-220 to 340-20-275.
- [(3)](4) "New source" means any air contaminant source installed, constructed, or modified after June 1, 1970.
- (5) "Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background as measured in accordance with the Department's Source Sampling Manual.
- ([5]6) "Particulate matter" means any matter, except uncombined water, which exists as a liquid or solid at standard conditions.
- ([6]7) "Refuse" means unwanted matter.
- ([7]8) "Refuse burning equipment" means a device designed to reduce the volume of solid, liquid, or gaseous refuse by combustion.
- ([8]9) "Ringlemann Smoke Chart" means the Ringlemann Smoke Chart with instructions for use as published in May, 1967, by the U.S. Department of Interior, Bureau of Mines.
- (f9]10) "Standard conditions" means a temperature of f60]68° Fahrenheit and a pressure of 14.7 pounds per square inch absolute.

(1[0]1) "Standard cubic foot" means the amount of gas that would occupy a volume of one cubic foot, if the gas were free of uncombined water at standard conditions. When applied to combustion flue gases from fuel or refuse burning, "standard cubic foot" also implies adjustment of gas volume to that which would result at a concentration of 12% carbon dioxide or 50% excess air.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16, f. 6-12-70, ef. 7-11-70; DEQ 1-1984, f. & ef. 1-16-84

Special Control Areas

340-21-010 OAR 340-21-005 through 340-21-060 are applicable to [T]the following areas of the state [are]established as special control areas[, and are deemed applicable to these regulations and to emission standards for industrial purposes]:

(1) <u>The counties within the Willamette Valley</u>, <u>[defined as all areas within counties of the state under the jurisdiction of a regional air pollution control authority as of June 1, 1970,]</u>including <u>Benton, Clackamas, Columbia, Lane, Linn, Marion, Multnomah, Polk, Washington and Yamhill counties.[:]</u>

[(a) The Columbia-Willamette Air-Pollution Authority, which includes the counties of Clackamas, Columbia, Multnomah, and Washington;

- (b) The Mid-Willamette Valley Air Pollution Authority, which includes the counties of Benton, Linn, Marion, Polk, and Yamhill;
- (C) -- Lane Regional Air Pollution Authority, which includes Lane County.]
- (2) Umpqua Basin, defined as the area bounded by the following line: Beginning at the SW corner of Section 2, T19S, R9W, on the Douglas-Lane County lines and extending due south to the SW corner of Section 14, T32S, R9W, on the Douglas-Curry County lines; thence easterly on the Douglas-Curry and Douglas-Josephine County lines to the intersection of the Douglas, Josephine, and Jackson County

lines; thence easterly on the Douglas-Jackson County line to the intersection of the Umpqua National Forest boundary on the NW corner of Section 32, T32S, R3W; thence northerly on the Umpqua National Forest boundary to the NE corner of Section 36, T25S, R2W; thence west to the NW corner of Section 36, T25S, R4W; thence north to the Douglas-Lane County line; thence westerly on the Douglas-Lane County line to the starting point.

- (3) Rogue Basin, defined as the area bounded by the following line: Beginning at the NE corner of T32S, R2E, W.M.; thence south along range line 2E to the SE corner of T39S; thence west along township line 39S to the NE corner of T40S, R7W; thence south to the SE corner of T40S, R7W; thence west to the SE corner of T40S, R9W; thence north on range line 9W to the NE corner of T39S, R9W; thence east to the NE corner of T39S, R8W; thence north on range line 8W to the SE corner of Section 1, T33S, R8W on the Josephine-Douglas County line; thence east on the Josephine-Douglas and Jackson-Douglas County lines to the NE corner of T32S, R1W; thence east along township line 32S to the NE corner of T32S, R2E to the point of beginning.
- (4) Within incorporated cities having a population of four thousand (4000) or more, and within three (3) miles of the corporate limits of any such city.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 16, f. 6-12-70, ef. 7-11-70

Visible Air Contaminant Limitations 340-21-015

- (1) Existing sources outside special control areas. No person shall cause, suffer, allow, or permit the emission of any air contaminant into the atmosphere from any existing air contaminant source located outside a special control area for a period or periods aggregating more than three minutes in any one hour which is:
 - (a) As dark or darker in shade as that designated as No.2 on the Ringlemann Chart; or
 - (b) Equal to or greater than 40% opacity.
- (2) New sources in all areas and existing sources within special control areas: No person shall cause, suffer, allow, or permit the emission of any air contaminant into the atmosphere from any new air contaminant source, or from

any existing source within a special control area, for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated as No.1 on the Ringlemann Chart; or

(b) Equal to or greater than 20% opacity.

-) Exceptions to sections (1) and (2) of this rule:
 - (a) Where the presence of uncombined water is the only reason for failure of any emission to meet the requirements of sections (1) and (2) of this rule, such sections shall not apply;
 - (b) Existing fuel burning equipment utilizing wood wastes and located within special control areas shall comply with the emission limitations of section (1) of this rule in lieu of section (2) of this rule.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16, f. 6-12-70, ef. 7-11-70

Fuel Burning Equipment Limitations 340-21-020

- (1) No person shall cause, suffer, allow, or permit the emission of particulate matter[,] from any fuel burning equipment in excess of:
 - (a) 0.2 grains per standard cubic foot for existing sources;
 - (b) 0.1 grains per standard cubic foot for new sources.
- (2) For sources burning salt laden wood waste on July 1, 1981, where salt in the fuel is the only reason for failure to comply with the above limits and when the salt in the fuel results from storage or transportation of logs in salt water, the resulting salt portion of the emissions shall be exempted from subsection (1)(a) or (b) of this rule and OAR 340-21-015. In no case shall sources burning salt laden woodwaste exceed 0.6 grains per standard cubic foot. Sources which utilize this exemption, to demonstrate compliance otherwise with subsection (1)(a) or (b) of this rule, shall:
 - (a) Not exceed a darkness of Ringleman 2 from the boiler stacks for more than three minutes in any one hour;
 - (b) Submit the results of a particulate emissions source test of the boiler stacks bi-annually.

(3)

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 16, f. 6-12-70, ef. 7-11-70; DEQ 12-1979, f. & ef. 6-8-79; DEQ 6-1981, f. & ef. 2-17-81; DEQ 18-1982, f. & ef. 9-1-82

Refuse Burning Equipment Limitations 340-21-025

No person shall cause, suffer, allow, or permit the emission of particulate matter from any refuse burning equipment in excess of:

- (1) For equipment designed to burn 200 pounds of refuse per hour or less, 0.3 grains per standard cubic foot; or
- (2) For equipment designed to burn more 200 pounds of refuse per hour:
 - (a) 0.2 grains per standard cubic foot for existing sources [,]; or
 - (b) 0.1 grains per standard cubic foot for new sources, except that small to medium size municipal waste incinerators located in coastal areas as defined in OAR 340-21-005(1) shall be subject to OAR 340-21-027 and larger municipal incinerators shall be subject to provisions of OAR 340-20-220 [to 340-20-275]through 340-20-276.

[NOTE: Sources subject to this rule may also be subject to OAR 340-25-850 through 340-25-905.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16, f. 6-12-70, ef. 7-11-70; DEQ 1-1984, f. & ef. 1-16-84

Municipal Waste Incinerator in Coastal Areas 340-21-027

(1) No person shall cause, suffer, allow, or permit the operation of any municipal waste incinerator in coastal areas which violates the following emission limits and requirements:

- (a) Particulate Emissions:
 - (A) For municipal waste incinerators capable of processing not more than 50 tons/day of wastes, 0.2 grains per standard cubic foot of exhaust gases;
 - (B) For municipal waste incinerators capable of processing greater than 50 tons/day of wastes, 0.08 grains per standard cubic foot of exhaust gases.
- (b) Minimum Exhaust Gas Temperatures:
 - (A) Prior to the initial charge of wastes and for the first 30 minutes of incineration of the initial charge, 1600°F for one second;
 - (B) For the period beginning 30 minutes after the initial charge of wastes to the time of the final charge, 1800°F for one second or 1700°F for two seconds or a temperature and corresponding residence time linearly interpolated between the aforementioned two points;
 - (C) For a two hour period after the final charge of waste, 1600°F for one second.
- (c) Visible Emissions and Particle Fallout Limitations of OAR 340-21-015 and 340-31-045, respectively.
- Each operator of a municipal waste incinerator in a coastal (2) area shall monitor the exhaust gas temperatures of each of its incinerators with a continuous recording pyrometer. The pyrometer shall be located at a point within the incinerator exhaust system which has been judged by the Department through plan review to represent a place that can demonstrate compliance or non-compliance with minimum exhaust gas temperature requirements in subsection (1)(b) of this rule. The operator shall retain [its]pyrometer records for one year unless at the expiration of the year an enforcement matter is pending against the operator, in which case the operator shall retain the records until the enforcement matter is finally terminated by an Order. The operator shall make fits pyrometer records available to the Department of Environmental Quality upon request.
- (3) In cases of multiple incinerators at one site, the 0.2 grain per standard cubic foot particulate emission standard in subsection (1)(a)(A) of this rule for individual municipal waste incinerators up to 50 tons/day capacity, shall apply only up to a combined capacity of 150 tons/day.

(4) Municipal waste incinerators in coastal areas, installed between 1970 and 1982, of 13 tons/day capacity and less, are exempt from subsection (1)(a) and (b) of this rule, but shall emit particulate at a concentration less than 0.30 gr/scf.

[NOTE: Sources subject to this rule may also be subject to OAR 340-25-850 through OAR 340-25-905.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 1-1984, f. & ef. 1-16-84

Particulate Emission Limitations for Sources Other Than Fuel Burning and Refuse Burning Equipment

340-21-030 No person shall cause, suffer, allow, or permit the emission of particulate matter, from any air contaminant source other than fuel burning equipment or refuse burning equipment, in excess of:

(1) 0.2 grains per standard cubic foot for existing sources; or
 (2) 0.1 grains per standard cubic foot for new sources.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Particulate Emissions From Process Equipment

Applicability

340-21-035[This rule] OAR 340-21-035 through 340-21-045 shall apply to all industrial processes other than those for which specific emission standards have been adopted. Also excluded are fuel burning and refuse burning equipment in which combustion gases do not mix directly with process materials.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Emission Standard

340-21-040 No person shall cause, suffer, allow, or permit the emission of particulate matter in any one hour from any process in excess of the amount shown in Table 1, for the process weight rate allocated to such process.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Determination of Process Weight 340-21-045

- (1) Process weight per hour is the total weight of all materials introduced into any specific process, which process may cause any discharge of particulate matter. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. For a cyclical or batch operation, the process weight per hour will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle. For a continuous operation, the process weight per hour will be derived by dividing the process weight per hour will be derived by dividing the process weight by a typical period of time.
- (2) Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this rule, the interpretation that results in the minimum value for allowable emission shall apply.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Fugitive Emissions

Definitions

340-21-050 As used in[this rule, unless otherwise required by context] OAR 340-21-050 through 340-21-060:

- (1) "Fugitive emissions" means dust, fumes, gases, mist, odorous matter, vapors or any combination thereof not easily given to measurement, collection, and treatment by conventional pollution control methods.
- (2) "Nuisance conditions" means unusual or annoying amounts of fugitive emissions traceable directly to one or more specific sources. In determining whether a nuisance condition exists, consideration shall be given to all of the circumstances, including density of population, duration of the activity in question, and other applicable factors.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Applicability

- 340-21-055[This rule] OAR 340-21-050 through 340-21-060 shall [be applicable]apply:
- (1) Within Special Control Areas, as [defined] established in OAR 340-21-010.
- (2) When ordered by the Department, in other areas when the need for application of the<u>se rules</u>[-regulation], and the practicability of control measures, have been clearly demonstrated.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Requirements

340-21-060

(1) When fugitive emissions escape from a building or equipment in such a manner and amount as to create nuisance conditions or to violate any regulation, the Department may, in addition to other means of obtaining compliance, order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that air contaminants are controlled or removed before discharge to the open air.

- (2) No person shall cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to the following:
 - Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (b) Application of asphalt, oil, water, or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (c) Full or partial enclosure of materials stockpiles in cases where application of oil, water, or chemicals are not sufficient to prevent particulate matter from becoming airborne;
 - (d) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
 - (e) Adequate containment during sandblasting or other similar operations;
 - (f) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (g) The prompt removal from paved streets of earth or other material which does or may become airborne.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Upset Conditions

Introduction

340-21-065 [Renumbered to 340-20-350]

Scheduled Maintenance

340-21-070 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 42-1990, f. 12-13-90, cert. ef. 1-2-91]

Malfunction of Equipment 340-21-075 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 42-1990, f. 12-13-90, cert. ef. 1-2-91]

Woodstove Certification

Definitions

340-21-100 [Renumbered to 340-34-005; AQ 7, f. & ef. 11/13/91]

Requirements for Sale of New Woodstoves in Oregon 340-21-105 [Renumbered to 340-34-010; AQ 7, f. & ef. 11/13/91]

Exemptions

340-21-110 [Renumbered to 340-34-015; AQ 7, f. & ef. 11/13/91]

Emissions Performance Standards and Certification 340-21-115 [Renumbered to 340-34-050; AQ 7, f. & ef. 11/13/91]

Efficiency Testing Criteria and Procedures 340-21-120 [Renumbered to 340-34-055; AQ 7, f. & ef. 11/13/91]

Changes in Woodstove Design 340-21-130 [Renumbered to 340-34-065; AQ 7, f. & ef. 11/13/91]

Labelling Requirements 340-21-135 [Renumbered to 340-34-070; AQ 7, f. & ef. 11/13/91]

Contents of Permanent Label 340-21-145 [DEQ 11-1984, f. & ef. 6-26-84; Repealed by DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90]

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 21 - DEPARTMENT OF ENVIRONMENTAL QUALITY Removable Label **340-21-150** [Renumbered to 340-34-075; AQ 7, f. & ef. 11/13/91] Label Approval 340-21-155 [Renumbered to 340-34-080; AQ 7, f. & ef. 11/13/91] Laboratory Accreditation Requirements 340-21-160 [Renumbered to 340-34-085; AQ 7, f. & ef. 11/13/91] Accreditation Criteria 340-21-165 [Renumbered to 340-34-090; AQ 7, f. & ef. 11/13/91] Application for Laboratory Efficiency Accreditation. 340-21-170 [Renumbered to 340-34-095; AQ 7, f. & ef. 11/13/91] **On-Site Laboratory Inspection and Stove Testing Proficiency** Demonstration **340-21-175** [Renumbered to 340-34-100; AQ 7, f. & ef. 11/13/91] Accreditation Application Deficiency, Notification and Resolution 340-21-180 [Renumbered to 340-34-105; AQ 7, f. & ef. 11/13/91] Final Department Administrative Review and Certificate of Accreditation **340-21-185** [Renumbered to 340-34-110; AQ 7, f. & ef. 11/13/91] Civil Penalties, Revocation, and Appeals 340-21-190 [Renumbered to 340-34-115; AQ 7, f. & ef. 11/13/91] Industrial Contingency Requirements for PM₁₀ Nonattainment Areas Purpose

340-21-200 OAR 340-21-200 through 340-21-245 establish contingency control requirements for existing industrial sources as required under section 172(c) of the Clean Air Act. These requirements become effective in a PM_{10} nonattainment area if the area fails to attain the national ambient air quality standard for PM_{10} by the applicable attainment date in the Clean Air Act.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468<u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

Relation to Other Rules

340-21-205 OAR 340-21-200 through 340-21-245 shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of these rules shall not, in any way, affect the applicability of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cases of apparent conflict, the most stringent rule shall apply.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468<u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

Applicability

340-21-210

- (1) OAR 340-21-200 through 340-21-245 shall apply in a PM_{10} nonattainment area upon publication by EPA of notice in the Federal Register that the area has failed to attain the national ambient air quality standard for PM_{10} by the attainment date required in the Clean Air Act.
- (2) (a) OAR 340-21-200 through 340-21-245 shall apply to a major source located outside of a PM_{10} nonattainment area upon a determination by the Department based upon a study conducted under subsection (b) of this section that the source has a significant impact on a PM_{10} nonattainment area affected under section (1) of this rule.
 - (b) Upon request of the Department, the owner or operator of any source with the potential to have a significant impact on a PM_{10} nonattainment area shall conduct, prior to the attainment date required in the Clean Air Act and in accordance with a study protocol approved by the Department, a receptor and dispersion modeling study of the impact of emissions from the source on the PM_{10} nonattainment area.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468 & 468A Hist.: AQ 6, f.& ef. 11-13-91

Definitions

340-21-215 As used in OAR 340-21-200 through 340-21-245

- (1) "Air Conveying System" means an air moving device, such as a fan or blower, associated ductwork, and a cyclone or other collection device, the purpose of which is to move material from one point to another by entrainment in a moving air stream.
- (2) "Charcoal Producing Plant" means an industrial operation which uses the destructive distillation of wood to obtain the fixed carbon in the wood.
- (3) "Collection Efficiency" means the overall performance of the air cleaning device in terms of ratio of weight of material collected to total weight of input to the collector.
- (4) "Contingency Requirements" means the requirements of OAR 340-21-200 through 340-21-245.
- (5) "Design Criteria" means the numerical as well as narrative description of the basis of design including, but not necessarily limited to, design flow rates, temperatures, humidities, descriptions of the types and chemical species of contaminants, uncontrolled and expected controlled mass emission rates and concentrations, scopes of any vendorsupplied and owner-supplied equipment and utilities, and a description of any operational controls.
- (6) "EPA" means the United States Environmental Protection Agency.
- (7) "Fugitive Emissions" means dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof not easily given to measurement, collection and treatment by conventional pollution control methods.
- (8) "General Arrangement", [in the context of the compliance schedule requirements in this division,] means drawings or reproductions which show, as a minimum, the size and location of the control equipment on a source plot plan, the location of equipment served by the emission-control system, the location and elevation above grade of the ultimate point of contaminant emission to the atmosphere, and the diameter of the emission vent.

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 21 - DEPARTMENT OF ENVIRONMENTAL QUALITY

- (9) "Hardboard" means a flat panel made from wood that has been reduced to basic wood fibers and bonded by adhesive properties under pressure.
- (10) "Large Sawmill" means a sawmill and/or planing mill which produces 25,000 or more board feet/shift of finished product.
- (12) "Major Source" <u>fis defined in OAR 340-20-225]means a</u> <u>stationary source which emits, or has the potential to emit,</u> <u>any pollutant regulated under the Clean Air Act at a</u> <u>Significant Emission Rate (OAR 340-20-225(25))</u>.

(13) "Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background as measured in accordance with the Department's Source Sampling Manual.

- (1[3]4) "Particleboard" means matformed flat panels consisting of wood particles bonded together with synthetic resin or other suitable binder.
- (1[4]5) "Particulate Matter" means all solid or liquid material, other than uncombined water, emitted to the ambient air as measured in accordance with the Department Source Sampling Manual. Particulate matter emission determinations shall consist of the average of three separate consecutive runs. For sources tested using DEQ Method 5 or DEQ Method 7, each run shall have a minimum sampling time of one hour, a maximum sampling time of eight hours, and a minimum sampling volume of 31.8 dscf. For sources tested using DEQ Method 8, each run shall have a minimum sampling time of 15 minutes and shall collect a minimum particulate sample of 100 mg. Wood waste boilers shall be tested with DEQ Method 5; wood particle dryers, fiber dryers and press/cooling vents shall be tested with DEQ Method 7; and air conveying systems shall be tested with DEQ Method 8. (1[5]6) "Plywood" means a flat panel built generally of an odd number of thin sheets of veneers of wood in which the grain direction of each ply or layer is at right angles to the one adjacent to it.
- (1[6]Z) "Press/Cooling Vents" means any openings, generally located immediately above the board press or board cooling area, through which particulate and gaseous emissions from panelboard manufacturing (including, but not limited to, particleboard and hardboard) are exhausted, either by natural draft or by powered fan, from the building housing the process.

- (1[7]8) "Significant Impact" means an annual average impact of 1.0 μ g/m³ or 24-hour average impact of 5.0 μ g/m³ of PM₁₀ from a source at the point of maximum concentration within a PM₁₀ nonattainment area as computed by a receptor and dispersion model approved by the Department.
- (1[8]) "Veneer" means a single flat panel of wood not exceeding 1/4 inch in thickness formed by slicing or peeling from a log.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[Publications: The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth: ORS Ch. 468<u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

Compliance Schedule for Existing Sources

340-21-220

- (1) Except as provided in sections (2) and (3) of this rule, compliance with applicable contingency requirements for a source that is located in an area prior to the date the contingency requirements first apply under OAR 340-21-210 shall be demonstrated as expeditiously as possible, but in no case later than the following schedule:
 - (a) No later than three months after the date the contingency requirements first apply under OAR 340-21-210, the owner or operator shall submit Design Criteria and a Notice of Intent to Construct for emission control systems for Department review and approval; and if the Department disapproves the Design Criteria, the owner or operator shall revise the Design Criteria to meet the Department's objections and submit the revised Design Criteria to the Department no later than one month after receiving the Department's disapproval;
 - (b) No later than three months after receiving the Department's approval of the Design Criteria, the owner or operator shall submit to the Department a General Arrangement and copies of purchase orders for any emission-control devices;
 - (c) No later than eight months after receiving the Department's approval of the Design Criteria, the owner or operator shall submit to the Department vendor

drawings as approved for construction of any emissioncontrol devices and specifications of any other major equipment in the emission control system in sufficient detail to demonstrate that the requirements of the Design Criteria will be satisfied;

- (d) No later than nine months after receiving the Department's approval of the Design Criteria, the owner or operator shall begin construction of any emissioncontrol devices;
- (e) No later than sixteen months after receiving the Department's approval of Design Criteria, the owner or operator shall complete construction in accordance with the Design Criteria;
- (f) No later than thirty months from the date the contingency requirements first apply under OAR 340-21-210 the owner or operator shall demonstrate compliance with the applicable contingency requirements.
- (2) Section (1) of this rule shall not apply if the owner or operator has demonstrated within six months after the date the contingency requirements first apply under OAR 340-21-210 that the source is capable of being operated and is operated in continuous compliance with applicable contingency requirements and the Department has agreed with the demonstration in writing. The Department may grant an extension of up to twelve months after the date the contingency requirements first apply under OAR 340-21-210 for a source to demonstrate compliance under this section. The applicable contingency requirements shall be incorporated in the Air Contaminant Discharge Permit issued to the source.
- (3) The Department may adjust the schedule specified in paragraphs (a) through (e) of section (1) of this rule if necessary to ensure timely compliance with paragraph (f) of section (1) of this rule.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468 <u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

Wood-Waste Boilers

340-21-225 No person shall cause or permit the emission into the atmosphere from any wood-waste boiler that is located on a plant site where the total heat input capacity from all wood-waste boilers is greater than 35 million BTU/hr:

- (1) Any air contaminant for a period or periods aggregating more than three minutes in any one hour which is equal to or greater than 10% opacity, unless the permittee demonstrates by source test that the source can comply with the emission limit in section (2) of this rule at higher opacity but in no case shall emissions equal or exceed 20% opacity for more than an aggregate of 3 minutes in any one hour. Specific opacity limits shall be included in the Air Contaminant Discharge Permit for each affected source.
- (2) Particulate matter in excess of 0.05 grains per standard cubic foot, corrected to 12% CO₂.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468<u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

Wood Particle Dryers at Particleboard Plants 340-21-230

- (1) No person shall cause or permit the total emission of particulate matter from all wood particle dryers at a particleboard plant site to exceed 0.40 pounds per 1,000 square feet of board produced by the plant on a 3/4" basis of finished product equivalent.
- (2) No person shall cause or permit the visible emissions from the wood particle dryers at a particleboard plant to exceed 10% opacity, unless the permittee demonstrates by source test that the particulate matter emission limit in section (1) can be achieved at higher visible emissions, but in no case shall emissions equal or exceed 20% opacity. Specific opacity limits shall be included in the Air Contaminant Discharge Permit for each affected source.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468<u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

Hardboard Manufacturing Plants

340-21-235 No person shall cause or permit the total emissions of particulate matter from all sources within a hardboard plant, other than press/cooling vents, in excess of 0.25 pounds per 1,000 square feet of hardboard produced on a 1/8" basis of finished product equivalent.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468<u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

Air Conveying Systems 340-21-240

- (1) No person shall cause or permit the emission of particulate matter in excess of 0.1 grains per standard cubic foot from any air conveying system emitting less than or equal to 10 tons of particulate matter to the atmosphere during any 12month period beginning on or after January 1, 1990.
- (2) All air conveying systems emitting greater than 10 tons of particulate matter to the atmosphere during any 12-month period beginning on or after January 1, 1990 shall be equipped with a control system with a collection efficiency of at least 98.5 percent or equivalent control as approved by the Department.
- (3) No person shall cause or permit the emission of any air contaminant which is equal to or greater than 5% opacity from any air conveying system subject to section (2) of this rule.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468<u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

Fugitive Emissions

340-21-245 The owner or operator of a large sawmill, any plywood mill or veneer manufacturing plant, particleboard plant, hardboard plant, or charcoal manufacturing plant that is located in an area subject to contingency requirements under OAR 340-21-210 shall comply with OAR 340-30-043.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468<u>& 468A</u> Hist.: AQ 6, f.& ef. 11-13-91

TABLE 2 (340-21-115)

CUMULATIVE PROBABILITY FOR A GIVEN HEAT OUTPUT DEMAND BASED ON OREGON CLIMATE (POPULATION WEIGHTED*)

Heat Output <u>(Btu/hr)</u>	Cumulative <u>Probability (P)</u>	Heat Output <u>(Btu/hr)</u>	Cumulative <u>Probability (P)</u>
0 600 1,200	0.02640 0.03071 0.03503	24,600 25,200 25,800	0.97873 0.98256 0.98540
1,800	0.04130	26,400	0.98713
2,400	0.04888	27,000	0.98972
3,000	0.05863	27,600	0.99096
3,600	0.06879	28,200	0.99237
4,200	0.08122	28,800	0.99316
4,800	0.09837	29,400	0.99408
5,400	0.11586	30,000	0.99472
6,000	0.13522	30,600	0.99506
6,600	0.15803	31,200	0.99526
7,200	0.18394	31,800	0.99563
7,800	0.21615	32,400	3.99589
8,400	0.24867	33,000	0.99679
9,000	0.28798	33,600	0.99711
9,600	0.32621	34,200	0.99745
10,200	0.37040	34,800	0,99774
10,800	0.41575	35,400	0.99787
11,400	0.46226	36,000	0.99817
12,000	0.50831	36,600	0.99837
12,600	0.55778	37,200	0.99851
13,200	0.60326	37,800	0.99858
13,800	0.64770	38,400	0.99882
14,400	0.68572	39,000	0.99899
15,000	0.72483	39,600	0.99915
15,600	0.75743	40,200	0.99933
16,200	0.78883	40,800	0.99945
16,800	0.81816	41,400	0.99958
17,400	0.84386	42,000	0.99968
18,000	0.86822	42,600	0.99974
18,600	0.88951	43,200	0.99986
19,200	0.90667	43,800	0.99992
19,800	0.92228	44,400	0.99995
20,400	0.93620	45,000	0.99996
21,000	0.94720	45,600	0.99999
21,600	0.95545	46,200	1.00000

22,200	0.96158	46,800	1.00000
22,800	0.96699	47,400	1.00000
23,400	0.97151	48,000	1.00000
24,000	0.97515	48,000	1.00000

*Based on ambient temperature data during October through April, 1967-73 with population weighting from eight Oregon locations (Portland, Medford, Pendleton, Astoria, Burns, North Bend, Redmond, and Salem).

<u>EXHIBIT 1</u> (340-21-115)

Calculating Weighted Average Particulate Emission

 $E = K_1 E_1 + K_2 K_2 + K_3 E_3 \dots + K_n E_n$ $K_1 + K_2 + K_3 \dots + K_n$

where: E is the weighted average particulate emission rate in grams per hour; E_1 , E_2 , $E_3 \cdots E_n$ are the particulate emission rates in grams per hour from test runs 1 through n in order of increasing heat output; and K_1 , H_2 , K_3 . . . K_n are the weighting factors for test runs 1 through n. The weighting factors (K_i) are calculated as follows:

$$\mathbf{K}_{\mathbf{i}} = \mathbf{P}_{\mathbf{i}+1} - \mathbf{P}_{\mathbf{i}-1}$$

where P_i is the cumulative probability from Table 2 for the heat output measured during each test run, $P_o = 0$, and $P_{n+1} = 1$.

DIVISION 22

GENERAL GASEOUS EMISSIONS

Sulfur Content of Fuels

Definitions

340-22-005 As used in these regulations, unless otherwise required by context] OAR 340-22-005 through 340-22-025:

- (1) "ASTM" means the American Society for Testing and Materials.
- (2) "Distillate Fuel Oil" means any oil meeting the specifications of ASTM Grade 1 or Grade 2 fuel oils.
- (3) "Residual Fuel Oil" means any oil meeting the specifications of ASTM Grade 4, Grade 5, or Grade 6 fuel oils.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Residual Fuel Oils

340-22-010

[(1) After July 1, 1972, no-person shall sell, distribute, use, or make available for use, any residual fuel oil containing more than 2.5 percent sulfur by weight.]

(2) After July 1, 1974, n]No person shall sell, distribute, use, or make available for use, any residual fuel oil containing more than 1.75 percent sulfur by weight.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 87, f. 3-25-75, ef. 4-25-75; DEQ 141, f. & ef. 8-25-77

Distillate Fuel Oils

340-22-015 [After July 1, 1972, n]No person shall sell, distribute, use, or make available for use, any distillate fuel oil containing more than the following percentages of sulfur: (1) ASTM Grade 1 fuel oil - 0.3 percent by weight. (2) ASTM Grade 2 fuel oil - 0.5 percent by weight.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Coal

340-22-020

- (1) [After July 1, 1972]Except as provided in section (2), no person shall sell, distribute, use, or make available for use, any coal containing greater than 1.0 percent sulfur by weight.
- (2) Except as provided for in sections (4) and (5) of this rule, no person shall sell, distribute, use or make available for use{, after July-1, 1983,} any coal or coal containing fuel with greater than 0.3% sulfur and 5% volatile matter as defined in ASTM Method D3175 for direct space heating within the Portland, Salem, Eugene-Springfield, and Medford-Ashland Air Quality Maintenance Areas. For coals subjected to a devolatilization process, compliance with the sulfur limit may be demonstrated on the sulfur content of coal prior to the devolatilization process.
- (3) Distributors of coal or coal containing fuel destined for direct residential space heating use shall keep records for a five year period which shall be available for DEQ inspection and which:
 - (a) Specify quantities of coal or coal containing fuels sold;
 - (b) Contain name and address of customers who are sold coal or coal containing fuels;
 - (c) Specify the sulfur and volatile content of coal or the coal containing fuel sold to residences in the Portland, Salem, Eugene-Springfield, and Medford-Ashland Air Quality Maintenance Areas.
- (4) Users of coal for direct residential space heating in 1980 who apply in writing by July 1, 1983 and receive written approval from the Department shall be exempted from the requirement of section (2) of this rule provided they certify that they used more than one-half (1/2) ton of coal in 1980.
- (5) Distributors may sell coal not meeting specification in section (2) of this rule to those users who have applied for and received the exemption provided for in section (4) of this rule.

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[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [-459] 468 & 468A Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 3-1982, f. & ef. 1-29-82

Exemptions

340-22-025 Exempted from the requirements of OAR 340-22-010, 340-22-015, and 340-22-020 are:

(1) Fuels used exclusively for the propulsion and auxiliary power requirements of

vessels, railroad locomotives, and diesel motor vehicles.

(2) With prior approval of the Department of Environmental Quality, fuels used in such a manner or control provided such that sulfur dioxide emissions can be demonstrated to be equal to or less than those resulting from the combustion of fuels complying with the limitations of OAR 340-22-010, 340-22-015, and 340-22-020.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

General Emission Standards for Sulfur Dioxide

Definitions

340-22-050 As used in [this regulation, unless otherwise required-by context] OAR 340-22-050 through 340-22-055:

- (1) "Fuel burning equipment" means equipment, other than internal combustion engines, the principal purpose of which is to produce heat or power by indirect heat transfer.
- (2) "New source" means any air contaminant source installed, constructed, or modified after January 1, 1972.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Fuel Burning Equipment

340-22-055 The following emission standards are applicable to new sources only:

- (1) For fuel burning equipment having more than 150 million BTU per hour heat input, but not more than 250 million BTU per hour heat input, no person shall cause, suffer, allow, or permit the emission into the atmosphere of sulfur dioxide in excess of:
 - (a) 1.4 lb. per million BTU heat input, maximum 2-hour average, when liquid fuel is burned;
 - (b) 1.6 lb. per million BTU heat input, maximum 2-hour average, when solid fuel is burned.
- (2) For fuel burning equipment having more than 250 million BTU per hour heat input, no person shall cause, suffer, allow, or permit the emission into the atmosphere of sulfur dioxide in excess of:
 - (a) 0.8 lb. per million BTU heat input, maximum 2-hour average, when liquid fuel is burned;
 - (b) 1.2 lb. per million BTU heat input, maximum 2-hour average, when solid fuel is burned.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

> General Emission Standards for Volatile Organic Compounds

Introduction

340-22-100

(1) **[These rules]OAR 340-22-100 through 340-22-300** regulate sources of VOC which contribute to the formation of photochemical oxidant, mainly ozone.

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- Since ozone standards are not violated in Oregon from (2)October through April (because of insufficient solar energy), natural gas-fired afterburners may be permitted, on a case-by-case basis, to lay idle during the winter months. Sources regulated by these rules OAR 340-22-100 through (3) 340-22-300 aref: (a) New sources] new and [all] existing sources in the Portland and Medford AQMA's and in the Salem SATS+ for] listed in subsections ([b]a) through ([m]n) of this section [;], including: Gasoline stations, underground tank filling; $\left(\frac{b}{a}\right)$ Bulk gasoline plants and delivery vessels; ([c]b) Bulk gasoline terminal loading; ([d]c) Cutback asphalt; ([e]₫) Petroleum refineries, petroleum refinery leaks; ({f}]e) VOC liquid storage, secondary seals; ([g]f) Coating including paper coating and ([h]g) miscellaneous painting; Aerospace component coating (h) (i) Degreasers; Asphaltic and coal tar pitch in roofing; (j). (k) Flat wood coating; (1)Rotogravure and Flexographic printing; Perchloroethylene dry cleaning [..]; (m) Automotive gasoline. (n) Sources not covered by the source categories listed in (4)section (3) of this rule which emit or have the potential to emit over 100 tons of VOC per year are subject to OAR 340 - 22 - 104(5). [NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.] Stat. Auth.: ORS Ch. f 468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91 Definitions 340-22-102 As used in <a>f these regulations, unless otherwise required by context] OAR 340-22-100 through 340-22-300:
- (1) "Aerospace component" means the fabricated part, assembly of parts, or completed unit of any aircraft, helicopter, missile or space vehicle.

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- (2) "Air dried coating" means coatings which are dried by the use of air at ambient temperature.
- (3) "Applicator" means a device used in a coating line to apply coating.
- (4) "Bulk gasoline plant" means a gasoline storage and distribution facility which receives gasoline from bulk terminals by railroad car or trailer transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, businesses, and service stations.
- (5) "Bulk gasoline terminal" means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck.
- (6) "Can Coating" means any coating applied by spray, roller, or other means to the inside and/or outside surfaces of metal cans, drums, pails, or lids.
- (7) "Carbon Bed Breakthrough" means the initial indication of depleted adsorption capacity characterized by a sudden measurable increase in VOC concentration exiting a carbon adsorption bed or column.
- (8) "Certified Underground Storage Device" means vapor recovery equipment for underground storage tanks as certified by the State of California Air Resources Board Executive Orders, copies of which are on file with the Department, or which has been certified by other air pollution control agencies and approved by the Department.
- (9) "Class II hardboard paneling finish" means finishers which meet the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.
- (10) "Clear coat" means a coating which lacks color and opacity or is transparent and uses the undercoat as a reflectant base or undertone color.
- (11) "Coating" means a material applied to a surface which forms a continuous film and is used for protective and/or decorative purposes.
- (12) "Coating Line" means one or more apparatus or operations which include a coating applicator, flash-off area, and oven or drying station wherein a surface coating is applied, dried, and/or cured.
- (13) "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

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- (14) "Crude oil" means a naturally occurring mixture which consists of hydrocarbons and/or sulfur, nitrogen, and/or oxygen derivatives of hydrocarbons and which is a liquid at standard conditions.
- (15) "Custody transfer" means the transfer of produced petroleum and/or condensate after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.
- (16) "Cutback asphalt" means a mixture of a base asphalt with a solvent such as gasoline, naphtha, or kerosene. Cutback asphalts are rapid, medium, or slow curing (known as RC, MC, SC), as defined in ASTM D2399.
- (17) "Day" means a 24-hour period beginning at midnight.
- (18) "Delivery vessel" means any tank truck or trailer used for the transport of gasoline from sources of supply to stationary storage tanks.
- (19) "Dry cleaning facility" means any facility engaged in the cleaning of fabrics in an essentially nonaqueous solvent by means of one or more washes in solvent, extraction of excess solvent by spinning, and drying by tumbling in an airstream. The facility includes but is not limited to any washer, dryer, filter and purification systems, waste disposal systems, holding tanks, pumps, and attendant piping and valves.
- (20) "Emission Unit" means any part of a stationary source which emits or would have the potential to emit any pollutant subject to regulation.
- (21) "External floating roof" means a cover over an open top storage tank consisting of a double deck or pontoon single deck which rests upon and is supported by the volatile organic liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.
- (22) "Extreme performance coatings" means coatings designed for extreme environmental conditions such as exposure to any one of the following: continuous ambient weather conditions, temperature consistently above 95 °C., detergents, abrasive and scouring agents, solvents, corrosive atmosphere, or similar environmental conditions.
- (23) "Extreme performance interior topcoat" means a topcoat used in interior spaces of aircraft areas requiring a fluid, stain or nicotine barrier.
- (24) "Fabric coating" means any coating applied on textile fabric. Fabric coating includes the application of coatings by impregnation.

(25)	"Flexographic Printing" means the application of words, designs and pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.
(26)	"Freeboard ratio" means the freeboard height divided by the width (not length) of the degreaser's air/solvent area.
(27)	"Forced air dried coating" means a coating which is dried by the use of warm air at temperatures up to 90 °C. (194 °F.).
(28)	"Gasoline" means any petroleum distillate having a Reid vapor pressure of 27.6 kPa (4.0 psi) or greater which is used to fuel internal combustion engines.
(29)	"Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle, boat, or airplane gasoline tanks from stationary storage tanks.
(30)	"Gas service" means equipment which processes, transfers or contains a volatile organic compound or mixture of volatile organic compounds in the gaseous phase.
(31)	"Hardboard" is a panel manufactured primarily from inter-felted ligno-cellulosic fibers which are consolidated under heat and pressure in a hot press.
(32)	"Hardwood plywood" is plywood whose surface layer is a veneer of hardwood.
(33)	"High Performance Architectural Coating" means coatings applied to aluminum panels and moldings being coated away from the place of installation.
(34)	"Internal floating roof" means a cover or roof in a fixed roof tank which rests upon or is floating upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.
(35)	"Large appliance" means any residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dish washers, trash compactors, air conditioners, and other similar products.
(36)	"Leaking component" means any petroleum refinery source which has a volatile organic compound concentration exceeding 10,000 parts per million (ppm) when tested in the manner described in method 31 and 33 on file with the Department. These sources include, but are not limited to, pumping seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open-ended pipes. Excluded from these sources are valves which are not externally regulated.

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- (37) "Liquid-mounted" means a primary seal mounted so the bottom of the seal covers the liquid surface between the tank shell and the floating roof.
- (38) "Liquid service" means equipment which processes, transfers or contains a volatile organic compound or mixture of volatile organic compounds in the liquid phase.
- (39) "Low solvent coating" means a coating which contains a lower amount of volatile organic compound than conventional organic solvent borne coatings. Low solvent coatings include waterborne, higher solids, electrodeposition and powder coatings.
- (40) "Major modification" means any physical change or change of operation of a source that would result in a net significant emission rate increase for any pollutant subject to regulation under the Clean Air Act. [Refer to OAR-340-20-225(14).]
- (41) "Major source" means a stationary source which emits or has the potential to emit any pollutant regulated under the Clean Air Act at a significant emission rate. [-Refer to OAR 340-20-225(15).]
- (42) "Maskant for chemical processing" means a coating applied directly to an aerospace component to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching and/or performing other chemical operations on the surface of the component.
- (43) "Miscellaneous metal parts and products" means any metal part or metal product, even if attached to or combined with a nonmetal part or product, except cans, coils, metal furniture, large appliances, magnet wires, automobiles, ships, and airplane bodies.
- (44) "Natural finish hardwood plywood panels" means panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.
- (45) "Operator" means any person who leases, operates, controls, or supervises a facility at which gasoline is dispensed.
- (46) "Oven-dried" means a coating or ink which is dried, baked, cured, or polymerized at temperatures over 90 °C. (194 °F.).
- (47) "Packaging rotogravure printing" means rotogravure printing upon paper, paper board, metal foil, plastic film, and other substrates, which are, in subsequent operations, formed into pack-aging products and labels for articles to be sold.
- (48) "Paper coating" means any coating applied on paper, plastic film, or metallic foil to make certain products, including (but not limited to)adhesive tapes and labels, book covers,

post cards, office copier paper, drafting paper, or pressure sensitive tapes. Paper coating includes the application of coatings by impregnation and/or saturation.

- (49) "Person" means the federal government, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatsoever.
- (50) "Petroleum refinery" means any facility engaged in producing gasoline, aromatics, kerosene, distillate fuel oils, residual fuel oils, lubricants, asphalt, or other products through distillation of petroleum, crude oil, or through redistillation, cracking, or reforming of unfinished petroleum derivatives. "Petroleum refinery" does not mean a re-refinery of used motor oils or other waste chemicals. "Petroleum refinery" does not include asphalt blowing or separation of products shipped together.
- (51) "Plant site basis" means all of the sources on the premises (contiguous land) covered in one Air Contaminant Discharge Permit unless another definition is specified in a Permit.
- (52) "Potential emissions before add-on controls" means the quantity of volatile organic material emissions that theoretically could be emitted by a stationary source, based on the design capacity or maximum production capacity of the source and 8760 hours per year before the application of capture systems or control devices.
- (53) "Pretreatment wash primer" means a coating which contains a minimum of 0.5% acid by weight for surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.
- (54) "Printed interior panels" means panels whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed.
- (55) "Printing" means the formation of words, designs and pictures, usually by a series of application rolls each with only partial coverage.
- (56) "Prime coat" means the first of two or more films of coating applied in an operation.
- (57) "Publication rotogravure printing" means rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

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- (58) "Reasonably Available Control Technology" or "RACT" means the lowest emission limitation that a particular source or source category is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.
- (59) "Roll printing" means the application of words, designs and pictures to a substrate by means of hard rubber or steel rolls.
- (60) "Sealant" means a coating applied for the purpose of filing voids and providing a barrier against penetration of water, fuel or other fluids or vapors.
- (61) "Specialty Printing" means all gravure and flexographic operations which print a design or image, excluding publication gravure and packaging printing. Specialty Printing includes printing on paper plates and cups, patterned gift wrap, wallpaper, and floor coverings.
- (62) "Splash filling" means the filling of a delivery vessel or stationary storage tanks through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.
- (63) "Source" means any building, structure facility, installation or combination thereof which emits or is capable of emitting air contaminants to the atmosphere and is located on one or more contiguous or adjacent properties and is owned or operated by the same person or by persons under common control.
- (64) "Source category" means all sources of the same type or classification.
- (65) "Submerged fill" means any fill pipe or hose, the discharge opening of which is entirely submerged when the liquid is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean any fill pipe, the discharge of which is entirely submerged when the liquid level is 18 inches, or is twice the diameter of the fill pipe, whichever is greater, above the bottom of the tank.
- (66) "Thin particleboard" means a manufactured board 1/4 inch or less in thickness made of individual wood particles which have been coated with a binder and formed into flat sheets by pressure.
- (67) "Thirty-day rolling average" means any value arithmetically averaged over any consecutive thirty days.
- (68) "Tileboard" means panelling that has a colored waterproof surface coating.
- (69) "Topcoat" means a coating applied over a primer or intermediate coating for purposes such as appearance, identification or protection.

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- (70) "True Vapor Pressure" means the equilibrium pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from Floating Roof Tanks", February, 1980.
- (71) "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.
- (72) "Vapor-mounted" means a primary seal mounted so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the primary seal, the tank shell, the liquid surface, and the floating roof.
- "Volatile Organic Compound", or "VOC", means any organic (73) compound which participates in atmospheric photochemical reactions to form ozone; that is, any precursor organic compound which would be emitted during use, application, curing or drying of a surface coating, solvent, or other material. Excluded from this category are those compounds which the U.S. Environmental Protection Agency classifies as being of negligible photochemical reactivity which includes methane, ethane, methylene chloride, 1,1,1-trichloroethane (methyl chloroform), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), and chloropentafluoroethane (CFC-115).

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Limitations and Requirements

General Requirements for New and Existing Sources 340-22-104

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- (1)Notwithstanding the emission limitations in [-these rules] OAR 340-22-100 through 340-22-300, all new major sources or major modifications at existing sources, located within the areas cited in section (2) of this rule, shall comply with OAR 340-20-220 through 340-20-276 (New Source Review).
- (2) All new and existing sources inside the following areas shall comply with the General Emission Standards for Volatile Organic Compounds:
 - (a) Portland-Vancouver Air Quality Maintenance Area;
 - (b) Medford-Ashland Air Quality Maintenance Area;
 - (c) Salem Area Transportation Study (SATS) Area.
- (3) VOC sources located outside the areas cited in section (2) of this rule are exempt from the General Emission standards for Volatile Organic Compounds.
- All new and existing sources inside the designated (4) nonattainment areas identified in section (2) of this rule shall apply Reasonably Available Control Technology (RACT) subject to the categorical RACT requirements set forth inf these-rules] OAR 340-22-100 through 340-22-300, or as described in sections (5) and (6) of this rule. Compliance with the conditions set forth in OAR 340-22-f106/100 through 340-22-300 shall be presumed to satisfy the RACT requirement.
- (5) Sources for which no categorical RACT requirements exist and which have potential emissions before add-on equipment of over 100 tons per year (TPY) of VOC from aggregated, non-regulated emission units, shall have RACT requirements developed on a case-by-case basis by the Department. A source may request RACT not be applied by demonstrating to the Department that potential emissions are below 100 tons due to a permanent reduction in production or capacity. Once a source becomes subject to RACT requirements underf these-rules] OAR 340-22-100 through 340-22-300, it shall continue to be subject to RACT, unless emissions fall below 100 tons and the source requests that RACT be removed, by demonstrating to the Department that potential emissions are below 100 tons due to a permanent reduction in production or capacity.
- (6) Within 3 months of written notification by the Department of the applicability of this rule, or, for good cause shown, up to an additional 3 months as approved by the Department, the source shall submit to the Department a complete analysis of RACT for each category of emission unit at the source, taking into account technical and economic feasibility of available control technology, and the emission reductions each technology would provide. This analysis does not need to include any emission units

subject to a specific RACT requirement under[-these rules] OAR 340-22-100 through 340-22-300. These RACT requirements approved by the Department shall be incorporated in the source's Air Contaminant Discharge Permit, and shall not become effective until approved by EPA as a source specific SIP revision. The source shall have one year from the date of notification by the Department of EPA approval to comply with the applicable RACT requirements.

(7) Failure by a source to submit a RACT analysis required by section (6) of this rule shall not relieve the source of complying with a RACT determination established by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [-468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Exemptions

340-22-106 Natural gas-fired afterburners installed for the purpose of complying with [these rules] OAR 340-22-100 through 340-22-300 shall be operated during the months of May, June, July, August, and September. During other months, the afterburners may be turned off with prior written Departmental approval, provided that the operation of such devices is not required for purposes of occupational health or safety, or for the control of toxic substances, malodors, or other regulated pollutants, or for complying with visual air contaminant limitations.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86

Compliance Determination

340-22-107

(1) Certification and test procedures <u>are listed in each</u> <u>specific section and on file] required by OAR 340-22-100</u> <u>through 340-22-300 shall be conducted in accordance</u> with the

Department's Source Sampling Manual. Applicants are encouraged to submit designs approved by other air pollution control agencies where VOC control equipment has been developed. Construction approvals and proof of compliance will, in most cases, be based on Departmental evaluation of the source and controls.

- (2) Approval by the Department of alternative methods for demonstrating compliance where specified and allowed inf these rules] OAR 340-22-100 through 340-22-300, including approval of equivalent testing methods for determining compliance, shall be subject to review and approval by EPA.
- (3) Sources subject to the requirements in OAR 340-22-170 and 340-22-175[of these rules] which cannot meet these requirements upon the effective date of <u>these</u> rules, shall be exempted from the enforcement provisions in OAR 340-12-041 [for 60 days from the effective date of these rules] through July 16, 1991. These sources may be placed on compliance schedules through issuance of permit addendums, pursuant to OAR 340-20-032.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [-468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; Renumbered from 340-22-106(3) & (4); DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Applicability of Alternative Control Systems 340-22-108 [DEQ 23-1980, f. & ef. 9-26-80; Repealed by DEQ 5-1983, f. & ef. 4-18-83]

Gasoline Dispensing Facilities 340-22-110

(1) No person may transfer or cause or allow the transfer of gasoline from any delivery vessel which was filled at a Bulk

Gasoline Terminal or nonexempted Bulk Gasoline Plant into any gasoline dispensing facility of less than 40,000 gallon capacity unless:

- (a) The tank is filled by submerged fill;
- (b) A vapor balance system is used which consists of a Certified Underground Storage Tank Device capable of collecting the vapor from volatile organic liquids and gases so as to prevent their emission to the outdoor atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place;
- (c) The vapors are processed by a system demonstrated to the satisfaction of the Department to be of equal effectiveness; or
- (d) All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order. No gasoline delivery shall take place unless the vapor return hose is connected by the delivery truck operator, if required by subsection (b) of this section.
- (2) Exemptions and Limitations:
 - (a) In the Portland-Vancouver AQMA, no person shall deliver gasoline to a gasoline dispensing facility unless the gasoline vapor is handled as required in subsection (1)(b) and (c) of this rule. Gasoline dispensing facilities with a monthly throughput of 10,000 gallons or less of gasoline (thirty-day rolling average) are exempt from these requirements;
 - (b) In the Medford-Ashland AQMA, all existing storage tanks at gasoline dispensing facilities with a rated capacity of 1,000 gallons or less shall be exempt from the submerged fill requirement in subsection (1)(a) of this rule;
 - (c) Transfers made to storage tanks of gasoline dispensing facilities equipped with floating roofs or their equivalent shall be exempt from[these rules] OAR 340-22-100 through 340-22-300;
 - (d) Stationary gasoline storage containers of less than 2,085 liters (550 gallons) used for agricultural purposes shall be exempt from[these rules] OAR 340-22-100 through 340-22-300;
 - (e) Stationary gasoline storage tanks with offset fill lines, welded-in drop tubes, or fill pipes of less than 3" diameter, if installed before January 1, 1979, shall be exempt from[these rules] OAR 340-22-100 through 340-22-300.

(3) Compliance with subsection (1)(b) of this rule shall be determined by verifications of use of equipment identical to equipment most recently approved and listed for such use by the Department or by testing in accordance with Method 30 on file with the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 16-1983, f. & ef. 10-19-83; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Bulk Gasoline Plants and Delivery Vessel(s) 340-22-120

- (1) No person shall transfer or allow the transfer of gasoline to or from a bulk gasoline plant unless:
 - (a) Each stationary storage tank and each delivery vessel uses submerged fill when transferring gasoline; and
 - (b) The displaced vapors from filling each tank and each delivery vessel are prevented from being released to the atmosphere through use of a vapor tight vapor balance system, or equivalent system as approved in writing by the Department. All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order.
- (2) Exemptions and Limitations:
 - (a) Bulk gasoline plants located within the Portland-Vancouver AQMA which transfer less than 4,000 gallons of gasoline per day [(]on a thirty-day rolling average[]] shall be exempt from the vapor balance requirement in OAR 340-22-110(1)(b);

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- (b) Bulk gasoline plants which deliver gasoline to dispensing facilities in the Portland-Vancouver AQMA with a monthly throughput of less than 10,000 gallons (thirty-day rolling average) of gasoline are exempt vapor balance requirement in OAR from the 340-22-110(1)(b), providing the gasoline delivery trucks are used exclusively for the delivery of gasoline to dispensing facilities also exempt from this requirement;
- (c) Bulk gasoline plants located in the Medford-Ashland AQMA, or in the Salem SATS, are exempt from the requirements in OAR 340-22-110(1)(b);
- (d) Each stationary gasoline storage tank may release vapor to the atmosphere through a pressure relief valve set to release at the highest possible pressure {{}; in accordance with State or local fire codes, or the National Fire Prevention Association guidelines{}} and no less than 3.4 kPa (0.50 psi) or some other setting approved in writing by the Department;
- (e) Gasoline shall be handled in a manner to prevent spillage, discharging into sewers, storage in open containers, or handled in any other manner that would result in evaporation. If more than five gallons are spilled, the operator shall report the spillage in accordance with OAR 340-20-350 to 340-20-380.
- (3) Compliance with subsection (1)(a) of this rule shall be determined by visual inspection to ensure minimal spillage of gasoline and proper installation of bottom loading couples.
- (4) Compliance with subsection (1)(b) of this rule shall be determined by verification of use of equipment approved by the Department and/or by testing and monitoring in accordance with applicable portions of OAR 340-22-137 and/or Method 31 and/or 32 on file with the Department.
- (5) The owner or operator of a gasoline delivery vessel shall maintain the vessel to be vapor tight at all times, in accordance with OAR 340-22-137(1), if such vessel is part of a vapor balance system required by[these rules] OAR 340-22-100 through 340-22-300.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Bulk Gasoline Terminals

- 340-22-130
- (1) No terminal owner or operator, shall allow volatile organic compounds (VOC) to be emitted into the atmosphere in excess of 80 milligrams of VOC per liter of gasoline loaded from the operation of loading truck tanks, and truck trailers at bulk gasoline terminals with a daily throughputs of greater than 76,000 liters (20,000 gallons) per day of gasoline (determined by a thirty-day rolling average):
 - (a) The owner or operator of a gasoline loading terminal shall only allow the transfer of gasoline between the facility and a truck tank or a truck trailer when a current leak test certification for the delivery vessel is on file with the terminal or a valid inspection sticker {(]as required by OAR 340-22-137(1)(c){)] is displayed on the delivery vessel;
 - (b) The owner or operator of a truck tank or a truck trailer shall not make any connection to the terminal's gasoline loading rack unless the gasoline delivery vessel has been tested in accordance with OAR 340-22-137(1);
 - (c) The truck driver or other operator who fills a delivery truck tank and/or trailer tank shall not take on a load of gasoline unless the vapor return hose is properly connected;
 - (d) All equipment associated with the vapor recovery system shall be maintained to be vapor tight and in good working order.
- (2) Compliance with section (1) of this rule shall be determined by testing in accordance with Method 33 on file with the Department. The method for determining compliance with section (1) of this rule are delineated in 40 CFR Part 60, Subpart XX, §60.503.
- (3) Bulk Gasoline terminals shall comply with the following within the limits of section (1) of this rule:

- (a) All displaced vapors and gases during tank truck gasoline loading operations are vented only to the vapor control system;
- (b) The loading device must not leak when in use. The loading device shall be designed and operated to allow no more than 10 cubic centimeters drainage per disconnect on the basis of 5 consecutive disconnects;
- (c) All loading liquid lines shall be equipped with fittings which make vapor-tight connections and which close automatically and immediately when disconnected;
- (d) All vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically and immediately when disconnected or which contain vapor-tight unidirectional valves;
- (e) Gasoline is handled in a manner to prevent its being discarded in sewers or stored in open containers or handled in any manner that would result in evaporation. If more than 5 gallons are spilled, the operator shall report the spillage in accordance with OAR 340-20-350 to 340-20-380;
- (f) The vapor collection system is operated in a manner to prevent the pressure therein from exceeding the tank truck or trailer pressure relief settings.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [-468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

340-22-133 [Renumbered to 340-33-130(2)] **340-22-136** [Renumbered to 340-22-130(3)]

CHAPTER 340, DIVISION 22 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Testing Vapor Transfer and Collection Systems 340-22-137

- (1) No person shall allow a vapor-laden delivery vessel subject to OAR 340-22-120(5) to be filled or emptied unless the delivery vessel:
 - (a) Is tested annually according to the test method 32 on file with the Department, or CFR Part 60, EPA Method 21 or 27, or California Air Resources Board Method 2-5;
 - (b) Sustains a pressure change of no more than 750 pascals (3 inches of H_2O) in 5 minutes when pressurized to a gauge pressure of 4,500 pascals (18 inches of H_2O) or evacuated to a gauge pressure of 1,500 pascals (6 inches of H_2O) during the testing required in subsection (1) (a) of this rule; and
 - (c) Displays a sticker near the Department of Transportation test date markings required by 49 CFR 177.824h, which:
 - (A) Shows the year and month that the gasoline tank truck last passed the test required in subsections (1) (a) and (b) of this rule;
 - (B) Shows the identification of the sticker; and
 - (C) Expires not more than one year from the date of the leak-test test, or if tested in California, on the expiration date so specified.
 - (d) Has its vapor return hose connected by the truck operator so that gasoline vapor is not expelled to the atmosphere.
- (2) The owner or operator of a vapor collection system subject to this regulation shall design and operate the vapor collection system and the gasoline loading equipment in a manner that prevents:
 - (a) Gauge pressure from exceeding 4,500 pascals (18 inches of H₂O) and vacuum from exceeding 1,500 pascals (6 inches of H₂O) in the gasoline tank truck being loaded;
 - (b) A reading equal to or greater than 100 percent of the lower explosive limit (LEL, measured as propane) at 2.5 centimeters from all points on the perimeter of a potential leak source when measured by the Method 31 and 33 on file with the Department, or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals; and
 - (c) Visible liquid leaks during loading or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals.

- (3) The Department may, at any time, monitor a gasoline tank truck, vapor collection system, or vapor control system, by the methods on file with the Department, to confirm continuing compliance with sections (1) or (2) of this rule.
 (4) Department and Department.
- (4) Recordkeeping and Reporting:
 - (a) The owner or operator of a source of volatile organic compounds subject to this<u>[-regulation] rule</u> shall maintain records of all certification testing and repairs. The records must identify the gasoline tank truck, vapor collection system, or vapor control system; the date of the test or repair; and if applicable, the type of repair and the date of retest. The records must be maintained in a legible, readily available condition for at least two years after the date of testing or repair was completed;
 - (b) Copies of all records and reports under subsection (4)(a) of this rule shall immediately be made available to the Department, upon verbal or written request, at any reasonable time.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] 468 & 468A
Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef.
4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef.
5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Cutback and Emulsified Asphalt

340-22-140

- (1) Use of any cutback asphalts for paving roads and parking areas is prohibited during the months of April, May, June, July, August, September, and October, except as provided for in section (2) of this rule.
- (2) Slow curing (SC) and medium curing (MC) cutback asphalts are allowed during all months for the following uses and applications:

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- Solely as a penetrating prime coat for aggregate bases prior to paving;
- (b) For the manufacture of medium-curing patching mixes to provide long-period storage stockpiles used exclusively for pavement maintenance; or
- (c) For all uses when the National Weather Service forecast of the high temperature during the 24-hour period following application is below 10° C. (50° F.).
- (3) Rapid curing (RC) grades of cutback asphalt are always prohibited.
- (4) (a) Use of emulsified asphalts is unrestricted if solvent content is kept at or less than the limits listed below. If these limits are exceeded, then the asphalt shall be classified as medium curing (MC) cutback asphalts, and shall be limited to only the uses permitted by section (2) of this rule. (Grades of Emulsion Per AASHTO Designation M 208-72 - Maximum Solvent Content by Weight):
 - (A) CRS-1 3%
 - (B) CRS-2 3%
 - (C) CSS-1 3%
 - (D) CSS-1h 3%
 - (E) CMS-2 8%
 - (F) CMS-2h 8%
 - (G) CMS-2S 12%(b) Solvent content is determined by ASTM distillation test
 - D-244.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [-468.020, 468.280-& 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Petroleum Refineries

340-22-150[These regulations] This rule shall apply to all petroleum refineries:

- (1) Vacuum-Producing Systems:
 - (a) Noncondensable VOC from vacuum producing systems shall be piped to an appropriate firebox, incinerator or to a closed refinery system;
 - (b) Hot wells associated with contact condensers shall be tightly covered and the collected VOC introduced into a closed refinery system.

- (2) Wastewater Separators:
 - (a) Wastewater separators' forebays shall incorporate a floating pontoon or fixed solid cover with all openings sealed totally enclosing the compartmented liquid contents, or a floating pontoon or double deck-type cover equipped with closure seals between the cover edge and compartment wall;
 - (b) Accesses for gauging and sampling shall be designed to minimize VOC emissions during actual use. All access points shall be closed with suitable covers when not in use.
- (3) Process Unit Turnaround:
 - (a) The VOC contained in a process unit to be depressurized for turnaround shall be introduced to a closed refinery system, combusted by a flare, or vented to a disposal system;
 - (b) The pressure in a process unit following depressurization for turnaround shall be less than 5 psig before venting to the ambient air.
- (4) Maintenance and Operation of Emission Control Equipment: Equipment for the reduction, collection or disposal of VOC shall be maintained and operated in a manner commensurate with the level of maintenance and housekeeping of the overall plant.
- (5) Recordkeeping: The owner or operator shall maintain a record of process unit turnarounds including an approximation of the quantity of VOC emitted to the atmosphere. Records shall be maintained for two years.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef.
6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 8-1991, f. & cert. ef.
5-16-91

Petroleum Refinery Leaks

340-22-153

- (1) All persons operating petroleum refineries shall comply with the following rules<u>]</u> this section concerning leaks:
 - (a) The owner or operator of a petroleum refinery complex, upon detection of a leaking component, which has a volatile organic compound concentration exceeding 10,000 ppm when tested in the manner described below shall:

- (A) Include the leaking component on a written list of scheduled repairs; and
- (B) Repair and retest the component within 15 days.
 (b) Except for safety pressure relief valves, no owner or operator of a petroleum refinery shall install or operate a valve at the end of a pipe or line containing volatile organic compounds unless the pipe or line is sealed with a second valve, a blind flange, a plug, or a cap. The sealing device may be removed only when a sample is being taken during maintenance operations;
- (c) Pipeline valves and pressure relief valves in gaseous volatile organic compound service shall be marked in some manner that will be readily obvious to both refinery personnel performing monitoring and the Department.
- (2) Testing Procedures: Testing and calibration procedures to determine compliance with this <u>[regulation] rule</u> shall be done in accordance with EPA Method 21.
- (3) Monitoring, Recordkeeping, Reporting:
 - (a) The owner or operator of a petroleum refinery shall maintain, as a minimum, records of all testing conducted under this rule; plus records of all monitoring conducted under subsections (b) and (c) of this section;
 - (b) The owner or operator of a petroleum refinery subject to this<u>f regulation<u>f</u> rule</u> shall:
 - (A) Monitor yearly by the methods referenced in section (2) of this rule all:
 - (i) Pump seals;
 - (ii) Pipeline valves in liquid service; and
 - (iii) Process drains.
 - (B) Monitor quarterly by the methods
 - referenced in section (2) of this rule all:
 (i) Compressor seals;
 - (i) Compressor sears;
 - (ii) Pipeline valves in gaseous service; and(iii) Pressure relief valves in gaseous
 - service.
 - (C) Monitor weekly by visual methods all pump seals;
 - (D) Monitor immediately any pump seal from which liquids are observed dripping;
 - (E) Monitor any relief valve within 24 hours after
 - it has vented to the atmosphere; and
 - (F) Monitor immediately after repair of any component that was found leaking.
 - (c) Pressure relief devices which are connected to an operating flare header, vapor recovery device, inaccessible valves, storage tank valves, or valves

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that are not externally regulated are exempt from the monitoring requirements in subsection (b) of this section;

- (d) The owner or operator of a petroleum refinery, upon the detection of a leaking component, shall affix a weatherproof and readily visible tag bearing an identification number and the date the leak is located to the leaking component. This tag shall remain in place until the leaking component is repaired;
- (e) The owner or operator of a petroleum refinery, upon the completion of each yearly and/or quarterly monitoring procedure, shall:
 - (A) Submit a report to the Department on the 15th day of January, April, July, and September, listing the leaking components that were located but not repaired within the required time limit in subsection (1)(a) of this rule;
 - (B) Submit a signed statement attesting to the fact that, with the exception of those leaking components listed in paragraph (A) of this subsection, all monitoring and repairs were performed as stipulated.
- (f) The owner or operator of a petroleum refinery shall maintain a leaking component monitoring log which shall contain, at a minimum, the following data:
 - (A) The name of the process unit where the component is located;
 - (B) The type of component (e.g., valve, seal);
 - (C) The tag number of the component;
 - (D) The date on which a leaking component is discovered;
 - (E) The date on which a leaking component is repaired;
 - (F) The date and instrument reading of the recheck
 - procedure after a leaking component is repaired;(G) A record of the calibration of the monitoring
 - instrument;
 - (H) Those leaks that cannot be repaired until turnaround, (exceptions to the 15 day requirement of paragraph (1)(a)(B) of this rule); and
 - (I) The total number of components checked and the total number of components found leaking.
- (g) Copies of all records and reports required by this section shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted;

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- (h) Copies of all records and reports required by this section shall immediately be made available to the Department upon verbal or written request at any reasonable time;
- (i) The Department may, upon written notice, modify the monitoring, recordkeeping and reporting requirements.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] **468 & 468A** Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Liquid Storage

340-22-160

- (1) Owners or operators which have tanks storing methanol or other volatile organic compound liquids with a true vapor pressure, as stored, greater than 10.5 kPa (kilo Pascals) (1.52 psia), at actual monthly average storage temperatures, and having a capacity greater than 150,000 liters (approximately 39,000 gallons) shall comply with one of the following:
 - (a) Meet the equipment specifications and maintenance requirements of the federal standards of performance for new stationary sources - Storage Vessels for Petroleum Liquids, 40 CFR 60 Subpart K, and Ka, as amended by Federal Register, April 4, 1980, pages 23379 through 23381;
 - (b) Be retrofitted with a floating roof or internal floating cover using at least a nonmetallic resilient seal as the primary seal meeting the equipment specifications in the federal standards referred to in subsection (a) of this section or its equivalent.
- (2) All seals used in subsections (1)(b) and (c) of this rule are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears or other openings.
- (3) All openings, except stub drains and those related to safety (such as slotted gage wells), are to be sealed with suitable closures. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place; except for slotted gage wells which must have floating seals with one half inch edge gaps or less.
- (4) Secondary Seals:

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- (a) Applicability: Subsection (c) of this section applies to all VOC liquid storage vessels equipped with external floating roofs, having capacities greater than 150,000 liters (39,000 gallons) except as indicated in paragraph (H) of subsection (c) of this section;
- (b) Exemptions: Subsection (c) of this section does not apply to petroleum liquid storage vessels which:
 - (A) Are used to store waxy, heavy pour crude oil;
 - (B) Have capacities less than 1,600,000 liters (420,000 gallons) and are used to store produced crude oil and condensate prior to lease custody transfer;
 - (C) Contain a VOC liquid with a true vapor pressure of less than 10.5 kPa (1.5 psia) where the vapor pressure is measured at the storage temperature;
 - (D) Contain a VOC liquid with a true vapor pressure less than 27.6 kPa (4.0 psia):
 - (i) Are of welded construction; and
 - (ii) Presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or other closure device of demonstrated equivalence approved by the Department; or
 - (E) Are of welded construction, equipped with a metallic-type shoe primary seal and has a secondary seal from the top of the shoe seal to the tank wall (shoemounted secondary seal).
- (c) No owner of a VOC liquid storage vessel subject to this rule shall store VOC liquid in that vessel unless:
 - (A) The vessel has been fitted with:
 - (i) A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or
 - (ii) A closure or other device which controls VOC emissions with an effectiveness equal to or greater than a seal required under subparagraph (A)(i) of this subsection as approved in writing by the Department.
 - (B) All seal closure devices meet the following requirements:
 - There are no visible holes, tears, or other openings in the seal(s) or seal fabric;

- (ii) The seal(s) are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and
- (iii) For vapor mounted seals, the accumulated area of gaps exceeding 0.32 cm (1/8 inch) in width between the secondary seal and the tank wall are determined by the method in subsection (d) of this section and shall not exceed 21.2 cm² per meter of tank diameter (1.0 in² per foot of tank diameter).
- (C) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are:
 - (i) Equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and
 - (ii) Equipped with projections into the tank which remain below the liquid surface at all times.
- (D) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- (E) Rim vents are set to open only when the roof is being floated off the leg supports or at the manufacturer's recommended setting;
- (F) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90 percent of the area of the opening; and
- (G) The owner or operator of a VOC liquid storage vessel with an external floating roof subject to subsection (c) of this section shall:
 - (i) Perform routine inspections semi-annually in order to ensure compliance with paragraphs (A) through (F) of this subsection and the shall include inspections а visual inspection of the secondary seal gap;
 - (ii) Measure the secondary seal gap annually in accordance with subsection (d) of this section when the floating roof is equipped with a vapor-mounted primary seal; and
 - (iii) Maintain records of the types of VOC liquids stored, the maximum true vapor

pressure of the liquid as stored, and the results of the inspections performed in subparagraphs (G)(i) and (ii) of this subsection.

- (H) The owner or operator of a VOC liquid storage vessel <u>having a capacity equal to or less than</u> <u>150,000 liters (39,000 gallons)</u> with an external floating roof<u>[not subject to this regulation]</u>, but containing a VOC liquid with a true vapor pressure greater than 7.00 kPa (1.0 psi), shall maintain records of the average monthly storage temperature, the type of liquid, and the maximum true vapor pressure for all VOC liquids with a true vapor pressure greater than 7.0 kPa;
- (I) The owner or operator of a VOC liquid storage vessel subject to this <u>{-regulation} rule</u>, shall submit to the Department, as a minimum, annual reports summarizing the inspections;
- (J) Copies of all records and reports under paragraphs (G) (H), and (I) of this subsection shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted;
- (K) Copies of all records and reports under this section shall immediately be made available to the Department, upon verbal or written request, at any reasonable time;
- (L) The Department may, upon written notice, require more frequent reports or modify the monitoring and recordkeeping requirements, when necessary to accomplish the purposes of this rule.
- (d) Secondary Seal Compliance Determination:
 - (A) The owner or operator of any volatile organic compound source required to comply with section
 (4) of this rule shall demonstrate compliance by the methods of this section or an alternative method approved by the Department;
 - (B) A person proposing to conduct a volatile organic compound emissions test shall notify the Department of the intent to test not less than 30 days before the proposed initiation of the tests so the Department may observe the test. The notification shall contain the information required by, and be in a format approved by the Department;
 - (C) Compliance with subparagraph (4)(c)(B)(iii) of this rule shall be determined by:

- (i) Physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (1/8 inch) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and tank wall; and
- (ii) Summing the area of the individual gaps.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Surface Coating in Manufacturing 340-22-170

- (1) No person shall operate a coating line which emits into the atmosphere volatile organic compounds in excess of the limits in section (5) of this rule, expressed as pounds VOC per gallon of coating applied, excluding water, unless an alternative emission limit is approved by the Department pursuant to section (3) of this rule or emissions are controlled to an equivalent level pursuant to section (7) of this rule.
- (2) Exemptions:
 - (a) This rule does not apply to airplanes painted out of doors in open air; automobile and truck refinishing; customized top coating of automobiles and trucks, if production is less than 35 vehicles per day; marine vessels and vessel parts painted out in the open air; flat wood coating; wood furniture and wood cabinets; wooden doors, mouldings, and window frames; machine staining of exterior wood siding; high temperature coatings (for service above 500° F.); lumber marking coatings; potable water tank inside coatings; high performance inorganic zinc coatings, air dried, applied to fabricated steel; and markings by stencil for railroad cars;

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- (b) This rule does not apply to:
 - (A) Sources [, regulated by this rule,] whose potential emissions from activities identified in section (5) of this rule before add on controls of volatile organic compounds are less than 10 tons per year (or 3 lb. VOC/hr or 15 lb. VOC/day actual); or
 - (B) Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance (such as research facilities, pilot plant operations, and laboratories) unless:
 - (i) The operation of the source is an integral part of the production process; or
 - (ii) The emissions from the source exceed 363 kilograms (800 pounds) in any calendar month.
- (3) Exceptions:
 - (a) On a case-by-case basis, the Department may approve exceptions to the emission limits specified in section
 (5) of this rule, upon documentation by the source that an alternative emission limit would satisfy the federal criteria for reasonably available control technology (RACT);
 - (b) Included in this documentation must be a complete analysis of technical and economic factors which:
 - (A) Prevent the source from using both compliance coatings and pollution control equipment; and
 - (B) Justify the alternative emission limit sought by the source.
 - (c) The alternative emission limit approved by the Department shall be incorporated into the source's Air Contaminant Discharge Permit and shall not become effective until approved by EPA as a source specific SIP revision.
- (4) Applicability: This rule applies to each coating line, which includes the application area(s), flashoff area(s), air and forced air drier(s), and oven(s) used in the surface coating of the metal parts and products in subsections (5)(a) through (j) of this rule.
- (5) Process and Limitation: These emission limitations shall be based on a daily average except subsection (5)(e) of this rule shall be based on a monthly average. If more than one emission limitation in this rule applies to a specific coating, then the most stringent emission limitation shall be applied:

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(a)		Coating:
	(A)	Sheet basecoat (exterior and interior) and
		over-varnish; two-piece can exterior (basecoat
		and over-varnish) 2.8 lb/gal.
	(B)	Two- and three-piece can interior and exterior
		body spray, two-piece can exterior end (spray or
		roll coat) 4.2 lb/gal.
	(C)	Three-piece can side-seam spray . 5.5 lb/gal.
	(D)	End sealing compound 3.7 lb/gal.
	(E)	End Sealing Compound for fatty foods
	(-/	
(b)	Fabri	C Coating
(c)	Vinvl	Coating
(d)	Daner	Coating
(u) (e)	Tuper Tviet	ing Coating of Paper and Film in the
(6)	Modfe	The coacing of raper and rink in the
	*FE D	ord-Ashland AQMA
(()		b VOC per 1000 sq. yds. of material per pass.
(f)		and Light Duty Truck Coating:
	(A)	Prime 1.9 lb/gal.
		Topcoat 2.8 lb/gal.
	(C)	Repair 4.8 lb/gal.
(g)	Metal	Furniture Coating 3.0 lb/gal.
(h)	Magne	t Wire Coating 1.7 lb/gal.
(i)	Large	Appliance Coating 2.8 lb/gal.
(j)	Misce	ellaneous Products and Metal Parts:
	(A)	Clear Coatings 4.3 lb/gal.
	(B)	Force Air Dried or Air Dried 3.5 lb/gal.
	(C)	Extreme Performance Coatings 3.5 lb/gal.
	(D)	Other Coatings (i.e., Powder, oven
		dried) 3.0 lb/gal.
	(E)	High Performance Architectural
	• •	Coatings
Compl	liance	Determination: Compliance with this rule shall be
		by testing in accordance with 40 CFR Part 60 EPA
Metho	d 18.	24, 25, a material balance method, or an
		plant specific method approved by and on file with
		ent. The limit in section (1) of this rule of VOC
		ing is based upon an assumed solvent density, and
		ptions unique to a coating line; where conditions
		h as a different solvent density, a plant specific
		oped pursuant to the applicable Control Technology
		locument may be submitted to the Department for
	,	tocument may be submitted to the bepartment for
appro		athed, The emigrican limits of continue (2) and (5)
		ethod: The emission limits of sections (3) and (5)
		e shall be achieved by:
(a)		application of low solvent content coating
	tecnn	ology;

(6)

(7)

- (b) An incineration system which oxidizes at least 90.0 percent of the nonmethane volatile organic compounds entering the incinerator (VOC measured as total combustible carbon) to carbon dioxide and water; or
- (c) An equivalent means of VOC removal. The equivalent means must be approved by the Department and will be incorporated in the source's Air Contaminant Discharge Permit, and shall not become effective until approved by EPA as a source-specific SIP revision. Other alternative emission controls approved by the Department and allowed by EPA may be used to provide an equivalent means of VOC removal.
- (8) Recordkeeping Requirements:
 - (a) A current list of coatings shall be maintained which provides all the coating data necessary to evaluate compliance, including the following information, where applicable:
 - (A) Coating catalyst and reducer used;
 - (B) Mix ratio of components used;
 - (C) VOC content of coating as applied; and
 - (D) Oven temperature.
 - (b) Where applicable, a monthly record shall be maintained indicating the type and amount of solvent used for cleanup and surface preparation;
 - (c) Such records shall be retained and available for inspection by the Department for a period of two years.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

340-22-173 [Renumbered to 340-22-170(5)]

Aerospace Component Coating Operations 340-22-175

(1) No owner or operator of an aero-space component coating facility shall emit into the atmosphere volatile organic compounds in excess of the following limits, expressed as

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pounds VOC per gallon of coating applied, excluding water, unless an alternative emission limit is approved by the Department pursuant to section (4) of this rule or emissions to the atmosphere are controlled to an equivalent level pursuant to section (10) of this rule: 2.9 lb/gal. ·(a) 2.8 lb/gal. (b) Interior Topcoat Electric or Radiation Effect Coating . 6.7 lb/gal. (C) Extreme Performance Interior Topcoat . 5.0 lb/gal. (d) 5.0 lb/gal. (e) Fire Insulation Coating 6.0 lb/gal. (f) 6.0 lb/gal. (g) 5.0 lb/gal. (h) Self-Priming Topcoat 3.5 lb/gal. (i) (j) 5.0 lb/gal. Pretreatment Wash Primer (k) 6.5 lb/gal. Sealant Bonding Primer 6.0 lb/gal. (1)Temporary Protective Coating (m) 2.1 lb/gal. (For conditions between 350° F. - 500° F.) After January 1, 1992, the emission limits for coatings in subsections (1)(d), (j), and (k) of this rule, shall not exceed 3.5 lb/gal. **Exemptions:** This rule does not apply to the following: The exterior of fully assembled airplanes painted out (a) of doors, high temperature coatings (for conditions over 500° F.), adhesive bonding primer, flight test coatings, and space vehicle coatings; Sources [, regulated by this rule,] whose potential (b) emissions from activities identified in sction (1) of this rule before add on controls of volatile organic compounds are less than 10 tons per year (or 3 lb. VOC/hr or 15 lb. VOC/day actual); The use of separate coating formulations in volumes of (C) less than 20 gallons per calendar year. No source shall use more than a combined total of 250 gallons per calendar year of exempt coatings. Records of coating usage shall be maintained as per section (8) of this rule; or Sources used exclusively for chemical or physical (d) analysis or determination of product quality and coating performance (such as research facilities and laboratories) unless: The operation of the source is an integral part (A) of the production process; or (B) The emissions from the source exceed 363 kilograms (800 pounds) in any calendar month.

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(3)

(2)

- (4) Exceptions:
 - (a) On a case-by-case basis, the Department may approve exceptions to the emission limits specified in section
 (1) of this rule, upon documentation by the source that an alternative emission limit would satisfy the federal criteria for reasonably available control technology (RACT);
 - (b) Included in this documentation must be a complete analysis of technical and economic factors which:
 - (A) Prevent the source from using both compliance coatings and pollution control equipment; and
 - (B) Justify the alternative emission limit sought by the source.
 - (c) The alternative emission limit approved by the Department shall be incorporated into the source's Air Contaminant Discharge Permit and shall not become effective until approved by EPA as a source-specific SIP revision.
- (5) Applicability: This rule[s] applies to each coating line, which includes the application area(s), flashoff area(s), air and force air drier(s), and oven(s) used in the surface coating of aerospace components in subsection (1)(a) through (m) of this rule. If more than one emission limitation in this rule applies to a specific coating, then the most stringent emission limitation shall be applied.
- (6) Solvent Evaporation Minimization:
 - (a) Closed containers shall be used for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup;
 - (b) Fresh or spent solvent shall be stored in closed containers;
 - (c) Organic compounds shall not be used for the cleanup of spray equipment unless equipment is used to collect the cleaning compounds and to minimize their evaporation;
 - (d) Containers of coating, catalyst, thinner, or solvent shall not be left open to the atmosphere when not in use.
- (7) Stripper Limitations: No stripper shall be used which contains more than 400 grams/liter (3.3 lbs/gal) of VOC or which has a true vapor pressure of 1.3 kPa (0.19 psia) at actual usage temperature.
- (8) Maskant for Chemical Processing Limitation: No maskant shall be applied for chemical processing unless the VOC emissions from coating operations are reduced by 85 percent, or the coating contains less than 600 grams/liter (5.0 lbs/gal) of VOC of coating excluding water, as applied.

- Compliance determination: Compliance with this rule shall be (9) determined by testing in accordance with 40 CFR Part 60 Appendix A Method 24 for determining the VOC content of the coating materials. Emissions from the coating processes and/or VOC emissions control efficiencies shall be determined by testing in accordance with 40 CFR Part 60 Appendix A Method 18, 25, California Method ST-7, a material balance method, or an equivalent plant specific method approved by EPA and the Department and on file with the Department. The limit in section (1) of this rule of VOC in the coating is based upon an assumed solvent density, and other assumptions unique to a coating line; where conditions differ, such as a different solvent density, a plant specific limit may be submitted to the Department and EPA for approval.
 -) Reduction Method: The emission limits of section (1) of this rule shall be achieved by:
 - (a) The application of a low solvent content coating technology;
 - (b) A vapor collection and disposal system; or
 - (c) An equivalent means of VOC removal. The equivalent means must be approved by the Department and will be incorporated in the source's Air Contaminant Discharge Permit, and shall not become effective until approved by EPA as a source-specified SIP revision. Other alternative emission controls approved by the Department and allowed by EPA may be used to provide an equivalent means of VOC removal.
- (11) Recordkeeping Requirements:
 - (a) A current list of coatings shall be maintained which provides all of the coating data necessary to evaluate compliance, including the following information, where applicable:
 - (A) A daily record indicating the mix ratio of components used; and
 - (B) The VOC content of the coating as applied.
 - (b) A monthly record shall be maintained indicating the type and amount of solvent used for cleanup and surface preparation;
 - (c) A monthly record shall be maintained indicating the amount of stripper used;
 - (d) Such records shall be retained and available for inspection by the Department for a period of two years.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

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[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468.020, 468.280 & 468.295</u> <u>468 & 468A</u> Hist.: DEQ 8-1991, f. & cert. ef. 5-16-91

Degreasers

340-22-180 Cold cleaners, open top vapor degreasers, and conveyorized degreasers are exempt from[the following] this rule[s] if they use fluids which are not photochemically reactive. These fluids are: $C_2C1_3F_3$ trichlorotrifluoroethane, also known as Freon 113 or Freon TF; CH_2C1_2 methylene chloride; 1, 1, $1-C_2H_3C1_3$, methyl chloroform, also known as 1-1-1 trichloroethane or chlorothene VG. Cold Cleaners:

- (1) The owner or operator of dip tank cold cleaners shall comply with the<u>f following</u> equipment specifications <u>in this section</u> after April 1, 1980:
 - Be equipped with a cover that is readily opened and closed. This is required of all cold cleaners, whether a dip tank or not;
 - (b) Be equipped with a drainrack, suspension basket, or suspension hoist that returns the drained solvent to the solvent bath;
 - (c) Have a freeboard ratio of at least 0.5;
 - (d) Have a visible fill line.
- (2) An owner or operator of a cold cleaner shall be responsible for following the required operating parameters and work practices. The owner shall post and maintain in the work area of each cold cleaner a pictograph or instructions clearly explaining the<u>f following</u> work practices<u>in this section</u>:
 - (a) The solvent level shall not be above the fill line;
 - (b) The spraying of parts to be cleaned shall be performed only within the confines of the cold cleaner;
 - (c) The cover of the cold cleaner shall be closed when not in use or when parts are being soaked or cleaned by solvent agitation;
 - (d) Solvent-cleaned parts shall be rotated to drain cavities or blind holes and then set to drain until dripping has stopped;

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- (e) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste [(]by weight[)] can evaporate into the atmosphere. Handling of the waste must also be done in accordance with the Department's solid and Hazardous Waste Rules, OAR <u>Chapter</u> 340, <u>Division</u> [-]100.
- (3) The owner or operator shall maintain cold cleaners in good working condition and free of solvent leaks.
- (4) If the solvent has a volatility greater than 2.0 kPa (0.3 psi) measured at 38 °C. (100 °F.), or if the solvent is agitated or heated, then the cover must be designed so that it can be easily operated with one hand or foot.
- (5) If the solvent has a volatility greater than 4.3 kPa (0.6 psi) measured at 38 °C. (100 °F.), then the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (6) If the solvent has a volatility greater than 4.3 kPa (0.6 psi) measured at 38 °C. (100 °F.), or if the solvent is heated above 50 °C. (120 °F.), then one of the following solvent vapor control systems must be used:
 - (a) The freeboard ratio must be equal to or greater than 0.70; or
 - (b) Water must be kept over the solvent, which must be insoluble in and heavier than water; or
 - (c) Other systems of equivalent control, such as a refrigerated chiller.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Open Top Vapor Degreasers 340-22-183

(1) The owner or operator of all open top vapor degreasers shall comply with the following equipment specifications:

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- (a) Be equipped with a cover that may be readily opened and closed. When a degreaser is equipped with a lip exhaust, the cover shall be located below the lip exhaust. The cover shall move horizontally or slowly so as not to agitate and spill the solvent vapor. The degreaser shall be equipped with at least the following three safety switches:
 - (A) Condenser flow switch and thermostat <u>[- (]to</u> shut[s] off sump heat if coolant is either not circulating or too warm[]];
 - (B) Spray safety switch [- (]to shut[s] off spray pump or conveyor if the vapor level drops excessively, (e.g., greater than 10 cm (4 inches));
 - (C) Vapor level control thermostat <u>{- (}to</u> shut<u>{s}</u> off sump heat when vapor level rises too high{)}.
- (b) {Have-the following:}
 - (A) A closed design such that the cover opens only when the part enters or exits the degreaser f(]and when the degreaser starts up, forming a vapor layer, the cover may be opened to release the displaced air f); and either;
 - (B) A freeboard ratio equal to or greater than 0.75; or
 - (C) A freeboard, refrigerated or cold water, chiller.
- (c) Post a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:
 - (A) Do not degrease porous or absorbent materials such as cloth, leather, wood or rope;
 - (B) The cover of the degreaser should be closed at all times except when processing workloads;
 - (C) When the cover is open the lip of the degreaser should not be exposed to steady drafts greater than 15.3 meters per minute (50 feet/ minute);
 - (D) Rack parts so as to facilitate solvent
 - drainage from the parts;
 - (E) Workloads should not occupy more than one-half of the vapor-air interface area;
 - (F) When using a powered hoist, the vertical speed of parts in and out of the vapor zone should be less than 3.35 meters per minute (11 feet/ minute);
 - (G) Degrease the workload in the vapor zone until condensation ceases;

- (H) Spraying operations should be done within the vapor layer;
- (I) Hold parts in the degreaser until visually dry;
- (J) When equipped with a lip exhaust, the fan should be turned off when the cover is closed;
- (K) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser;
- (L) Water shall not be visible in the solvent stream from the water separator.
- (2) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses, as for example, from dripping drain taps, cracked gaskets, and malfunctioning equipment. Leaks must be repaired immediately.
- (3) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leakproof couplings.
- (4) Still and sump bottoms shall be kept in closed containers.
- (5) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Handling of the waste must also be done in accordance with the Department's Solid and Hazardous Waste Rules, OAR <u>Chapter</u> 340, <u>Division [-]</u>100.
- (6) Exhaust ventilation shall not exceed 20 m³/minute per m² (65 cfm per foot²) of degreaser open area, unless necessary to meet OSHA requirements. Ventilation fans shall not be used near the degreaser opening.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Conveyorized Degreasers

340-22-186

(1) The owner or operator of conveyorized cold cleaners and conveyorized vapor degreasers shall comply with the following operating requirements:

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- (a) Exhaust ventilation should not exceed 20 cubic meters per minute of square meter (65 cfm per foot²) of degreaser opening, unless necessary to meet OSHA requirements. Workplace fans should not be used near the degreaser opening;
- (b) Post in the immediate work area a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:
 - (A) Rack parts for best drainage;
 - (B) Maintain vertical speed of conveyored parts to less than 3.35 meters per minute (11 feet/minute);
 - (C) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser.
- (2) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses, as for example, from dripping drain taps, cracked gaskets, and malfunctioning equipment. Leaks must be repaired immediately.
- (3) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leakproof couplings.
- (4) Still and sump bottoms shall be kept in closed containers.
 (5) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Handling of the waste must also be done in accordance with the Department's Solid and Hazardous Waste Rules, OAR Chapter 340, Division [-]100.
- (6) All conveyorized cold cleaners and conveyorized vapor degreasers with air/vapor interfaces of 2.0 m² or greater shall have one of the following major control devices installed and operating:
 - (a) Carbon adsorption system, exhausting less than 25 ppm of solvent averaged over a complete adsorption cycle, [(]based on exhaust ventilation of 15 m³/minutes per m² of air/vapor area, when down-time covers are open[)]; or
 - (b) Refrigerated chiller with control effectiveness equal to or better than subsection (a) of this section; or
 - (c) A system with control effectiveness equal to or better than subsection (a) of this section.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Asphaltic and Coal Tar Pitch Used for Roofing Coating 340-22-190

- (1) No person shall operate or use equipment for melting, heating or holding asphalt or coal tar pitch for the on-site construction, installation, or repair of roofs unless the gas-entrained effluents from such equipment are contained by close fitting covers.
- (2) A person operating equipment subject to this rule shall maintain the temperature of the asphaltic or coal tar pitch below 285 °C. (550 °F.), or 17 °C. (30 °F.) below the flash point whichever is the lower temperature, as indicated by a continuous reading thermometer.
- (3) The provisions of this rule shall not apply to equipment having a capacity of 100 liters (26 gallons) or less; or to equipment having a capacity of 600 liters (159 gallons) or less provided it is equipped with a tightly fitted lid or cover.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] **468 & 468A** Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 8-1991, f. & cert. ef. 5-16-91

Flat Wood Coating

340-22-200

- (1) This rule applies to all flat wood manufacturing and surface finishing facilities, that manufacture the following products:
 - (a) Printed interior panels made of hardwood plywood and thin particle board;
 - (b) Natural finish hardwood plywood panels; or
 - (C) Hardboard paneling with Class II finishes.

DIVISION 22

GENERAL GASEOUS EMISSIONS

Sulfur Content of Fuels

Definitions

340-22-005 As used in these regulations, unless otherwise required by context] OAR 340-22-005 through 340-22-025:

- (1) "ASTM" means the American Society for Testing and Materials.
- (2) "Distillate Fuel Oil" means any oil meeting the specifications of ASTM Grade 1 or Grade 2 fuel oils.
- (3) "Residual Fuel Oil" means any oil meeting the specifications of ASTM Grade 4, Grade 5, or Grade 6 fuel oils.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Residual Fuel Oils

340-22-010

f(1) After July 1, 1972, no person shall sell, distribute, use, or make available for use, any residual fuel oil containing more than 2.5 percent sulfur by weight.]

[(2) After July 1, 1974, n]No person shall sell, distribute, use, or make available for use, any residual fuel oil containing more than 1.75 percent sulfur by weight.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 87, f. 3-25-75, ef. 4-25-75; DEQ 141, f. & ef. 8-25-77

Distillate Fuel Oils

340-22-015 [After July 1, 1972, n]No person shall sell,
distribute, use, or make available for use, any distillate fuel
oil containing more than the following percentages of sulfur:
(1) ASTM Grade 1 fuel oil - 0.3 percent by weight.
(2) ASTM Grade 2 fuel oil - 0.5 percent by weight.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Coal

340-22-020

- (1) <u>[After July 1, 1972]Except as provided in section (2)</u>, no person shall sell, distribute, use, or make available for use, any coal containing greater than 1.0 percent sulfur by weight.
- (2) Except as provided for in sections (4) and (5) of this rule, no person shall sell, distribute, use or make available for use[, after July 1, 1983,] any coal or coal containing fuel with greater than 0.3% sulfur and 5% volatile matter as defined in ASTM Method D3175 for direct space heating within the Portland, Salem, Eugene-Springfield, and Medford-Ashland Air Quality Maintenance Areas. For coals subjected to a devolatilization process, compliance with the sulfur limit may be demonstrated on the sulfur content of coal prior to the devolatilization process.
- (3) Distributors of coal or coal containing fuel destined for direct residential space heating use shall keep records for a five year period which shall be available for DEQ inspection and which:
 - (a) Specify quantities of coal or coal containing fuels sold;
 - (b) Contain name and address of customers who are sold coal or coal containing fuels;
 - (c) Specify the sulfur and volatile content of coal or the coal containing fuel sold to residences in the Portland, Salem, Eugene-Springfield, and Medford-Ashland Air Quality Maintenance Areas.
- (4) Users of coal for direct residential space heating in 1980 who apply in writing by July 1, 1983 and receive written approval from the Department shall be exempted from the requirement of section (2) of this rule provided they certify that they used more than one-half (1/2) ton of coal in 1980.
- (5) Distributors may sell coal not meeting specification in section (2) of this rule to those users who have applied for and received the exemption provided for in section (4) of this rule.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [-459] 468 & 468A Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 3-1982, f. & ef. 1-29-82

Exemptions

340-22-025 Exempted from the requirements of OAR 340-22-010, 340-22-015, and 340-22-020 are:

- Fuels used exclusively for the propulsion and auxiliary power requirements of vessels, railroad locomotives, and diesel motor vehicles.
- (2) With prior approval of the Department of Environmental Quality, fuels used in such a manner or control provided such that sulfur dioxide emissions can be demonstrated to be equal to or less than those resulting from the combustion of fuels complying with the limitations of OAR 340-22-010, 340-22-015, and 340-22-020.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

General Emission Standards for Sulfur Dioxide

Definitions

340-22-050 As used in this regulation, unless otherwise required by context] OAR 340-22-050 through 340-22-055:

- "Fuel burning equipment" means equipment, other than internal combustion engines, the principal purpose of which is to produce heat or power by indirect heat transfer.
- (2) "New source" means any air contaminant source installed, constructed, or modified after January 1, 1972.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Fuel Burning Equipment

340-22-055 The following emission standards are applicable to new sources only:

- (1) For fuel burning equipment having more than 150 million BTU per hour heat input, but not more than 250 million BTU per hour heat input, no person shall cause, suffer, allow, or permit the emission into the atmosphere of sulfur dioxide in excess of:
 - (a) 1.4 lb. per million BTU heat input, maximum 2-hour average, when liquid fuel is burned;
 - (b) 1.6 lb. per million BTU heat input, maximum 2-hour average, when solid fuel is burned.
- (2) For fuel burning equipment having more than 250 million BTU per hour heat input, no person shall cause, suffer, allow, or permit the emission into the atmosphere of sulfur dioxide in excess of:
 - (a) 0.8 lb. per million BTU heat input, maximum 2-hour average, when liquid fuel is burned;
 - (b) 1.2 lb. per million BTU heat input, maximum 2-hour average, when solid fuel is burned.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

General Emission Standards for Volatile Organic Compounds

Introduction

340-22-100

(1) [These rules]OAR 340-22-100 through 340-22-300 regulate sources of VOC which contribute to the formation of photochemical oxidant, mainly ozone.

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(2)	Since ozone standards are not violated in Oregon from
(~)	October through April (because of insufficient solar
	energy), natural gas-fired afterburners may be permitted,
	on a case-by-case basis, to lay idle during the winter
	months.
(3)	Sources regulated by [these rules] OAR 340-22-100 through
	<u>340-22-300</u> are [:
	(a) New sources] new and[all] existing sources in the
•	Portland and Medford AQMA's and in the Salem SATS [
	for] listed in subsections ([b]a) through ([m]n) of
	this section [;], including:
	([b] a) Gasoline stations, underground tank filling;
	([c]b) Bulk gasoline plants and delivery vessels;
	(fd]c) Bulk gasoline terminal loading;
	([e]d) Cutback asphalt;
	([f]e) Petroleum refineries, petroleum refinery leaks;
	([g]f) VOC liquid storage, secondary seals;
	([9]1) Voc Hquid Scoluge, Secondary Seals, ([h]g) Coating including paper coating and
	miscellaneous painting;
•	(h) Aerospace component coating
	(i) Degreasers;
	(j) Asphaltic and coal tar pitch in roofing;
	(k) Flat wood coating;
	(1) Rotogravure and Flexographic printing;
	(1) Rotogravure and Flexographic printing;
	(m) Perchloroethylene dry cleaning [.];
(1)	(n) Automotive gasoline.
(4)	Sources not covered by the source categories listed in
	section (3) of this rule which emit or have the potential
	to emit over 100 tons of VOC per year are subject to OAR
	340-22-104(5).
	[NOTE: This rule is included in the State of Oregon Clean
	st Implementation Plan as adopted by the Environmental
Qualit	cy Commission under OAR 340-20-047.]
a b - b	
	Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A
Hist.:	DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef.
	79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef.
2-12-8	36; DEQ 8-1991, f. & cert. ef. 5-16-91
Defini	
	340-22-102 As used in { these regulations, unless otherwise
requir	ed by context] OAR 340-22-100 through 340-22-300:
(1)	"Aerospace component" means the fabricated part, assembly
	of parts, or completed unit of any aircraft, helicopter,

missile or space vehicle.

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- (2) "Air dried coating" means coatings which are dried by the use of air at ambient temperature.
- (3) "Applicator" means a device used in a coating line to apply coating.
- (4) "Bulk gasoline plant" means a gasoline storage and distribution facility which receives gasoline from bulk terminals by railroad car or trailer transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, businesses, and service stations.
- (5) "Bulk gasoline terminal" means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck.
- (6) "Can Coating" means any coating applied by spray, roller, or other means to the inside and/or outside surfaces of metal cans, drums, pails, or lids.
- (7) "Carbon Bed Breakthrough" means the initial indication of depleted adsorption capacity characterized by a sudden measurable increase in VOC concentration exiting a carbon adsorption bed or column.
- (8) "Certified Underground Storage Device" means vapor recovery equipment for underground storage tanks as certified by the State of California Air Resources Board Executive Orders, copies of which are on file with the Department, or which has been certified by other air pollution control agencies and approved by the Department.
- (9) "Class II hardboard paneling finish" means finishers which meet the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.
- (10) "Clear coat" means a coating which lacks color and opacity or is transparent and uses the undercoat as a reflectant base or undertone color.
- (11) "Coating" means a material applied to a surface which forms a continuous film and is used for protective and/or decorative purposes.
- (12) "Coating Line" means one or more apparatus or operations which include a coating applicator, flash-off area, and oven or drying station wherein a surface coating is applied, dried, and/or cured.
- (13) "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

- (14) "Crude oil" means a naturally occurring mixture which consists of hydrocarbons and/or sulfur, nitrogen, and/or oxygen derivatives of hydrocarbons and which is a liquid at standard conditions.
- (15) "Custody transfer" means the transfer of produced petroleum and/or condensate after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.
- (16) "Cutback asphalt" means a mixture of a base asphalt with a solvent such as gasoline, naphtha, or kerosene. Cutback asphalts are rapid, medium, or slow curing (known as RC, MC, SC), as defined in ASTM D2399.
- (17) "Day" means a 24-hour period beginning at midnight.
- (18) "Delivery vessel" means any tank truck or trailer used for the transport of gasoline from sources of supply to stationary storage tanks.
- (19) "Dry cleaning facility" means any facility engaged in the cleaning of fabrics in an essentially nonaqueous solvent by means of one or more washes in solvent, extraction of excess solvent by spinning, and drying by tumbling in an airstream. The facility includes but is not limited to any washer, dryer, filter and purification systems, waste disposal systems, holding tanks, pumps, and attendant piping and valves.
- (20) "Emission Unit" means any part of a stationary source which emits or would have the potential to emit any pollutant subject to regulation.
- (21) "External floating roof" means a cover over an open top storage tank consisting of a double deck or pontoon single deck which rests upon and is supported by the volatile organic liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.
- (22) "Extreme performance coatings" means coatings designed for extreme environmental conditions such as exposure to any one of the following: continuous ambient weather conditions, temperature consistently above 95 °C., detergents, abrasive and scouring agents, solvents, corrosive atmosphere, or similar environmental conditions.
- (23) "Extreme performance interior topcoat" means a topcoat used in interior spaces of aircraft areas requiring a fluid, stain or nicotine barrier.
- (24) "Fabric coating" means any coating applied on textile fabric. Fabric coating includes the application of coatings by impregnation.

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- (25) "Flexographic Printing" means the application of words, designs and pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.
- (26) "Freeboard ratio" means the freeboard height divided by the width (not length) of the degreaser's air/solvent area.
- (27) "Forced air dried coating" means a coating which is dried by the use of warm air at temperatures up to 90 °C. (194 °F.).
- (28) "Gasoline" means any petroleum distillate having a Reid vapor pressure of 27.6 kPa (4.0 psi) or greater which is used to fuel internal combustion engines.
- (29) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle, boat, or airplane gasoline tanks from stationary storage tanks.
- (30) "Gas service" means equipment which processes, transfers or contains a volatile organic compound or mixture of volatile organic compounds in the gaseous phase.
- (31) "Hardboard" is a panel manufactured primarily from inter-felted ligno-cellulosic fibers which are consolidated under heat and pressure in a hot press.
- (32) "Hardwood plywood" is plywood whose surface layer is a veneer of hardwood.
- (33) "High Performance Architectural Coating" means coatings applied to aluminum panels and moldings being coated away from the place of installation.
- (34) "Internal floating roof" means a cover or roof in a fixed roof tank which rests upon or is floating upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.
- (35) "Large appliance" means any residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dish washers, trash compactors, air conditioners, and other similar products.
- (36) "Leaking component" means any petroleum refinery source which has a volatile organic compound concentration exceeding 10,000 parts per million (ppm) when tested in the manner described in method 31 and 33 on file with the Department. These sources include, but are not limited to, pumping seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open-ended pipes. Excluded from these sources are valves which are not externally regulated.

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- (37) "Liquid-mounted" means a primary seal mounted so the bottom of the seal covers the liquid surface between the tank shell and the floating roof.
- (38) "Liquid service" means equipment which processes, transfers or contains a volatile organic compound or mixture of volatile organic compounds in the liquid phase.
- (39) "Low solvent coating" means a coating which contains a lower amount of volatile organic compound than conventional organic solvent borne coatings. Low solvent coatings include waterborne, higher solids, electrodeposition and powder coatings.
- (40) "Major modification" means any physical change or change of operation of a source that would result in a net significant emission rate increase for any pollutant subject to regulation under the Clean Air Act. [Refer to OAR 340-20-225(14).]
- (41) "Major source" means a stationary source which emits or has the potential to emit any pollutant regulated under the Clean Air Act at a significant emission rate. [Refer to OAR 340-20-225(15).]
- (42) "Maskant for chemical processing" means a coating applied directly to an aerospace component to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching and/or performing other chemical operations on the surface of the component.
- (43) "Miscellaneous metal parts and products" means any metal part or metal product, even if attached to or combined with a nonmetal part or product, except cans, coils, metal furniture, large appliances, magnet wires, automobiles, ships, and airplane bodies.
- (44) "Natural finish hardwood plywood panels" means panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.
- (45) "Operator" means any person who leases, operates, controls, or supervises a facility at which gasoline is dispensed.
- (46) "Oven-dried" means a coating or ink which is dried, baked, cured, or polymerized at temperatures over 90 °C. (194 °F.).
- (47) "Packaging rotogravure printing" means rotogravure printing upon paper, paper board, metal foil, plastic film, and other substrates, which are, in subsequent operations, formed into pack-aging products and labels for articles to be sold.
- (48) "Paper coating" means any coating applied on paper, plastic film, or metallic foil to make certain products, including (but not limited to)adhesive tapes and labels, book covers,

post cards, office copier paper, drafting paper, or pressure sensitive tapes. Paper coating includes the application of coatings by impregnation and/or saturation.

- (49) "Person" means the federal government, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatsoever.
- (50) "Petroleum refinery" means any facility engaged in producing gasoline, aromatics, kerosene, distillate fuel oils, residual fuel oils, lubricants, asphalt, or other products through distillation of petroleum, crude oil, or through redistillation, cracking, or reforming of unfinished petroleum derivatives. "Petroleum refinery" does not mean a re-refinery of used motor oils or other waste chemicals. "Petroleum refinery" does not include asphalt blowing or separation of products shipped together.
- (51) "Plant site basis" means all of the sources on the premises (contiguous land) covered in one Air Contaminant Discharge Permit unless another definition is specified in a Permit.
- (52) "Potential emissions before add-on controls" means the quantity of volatile organic material emissions that theoretically could be emitted by a stationary source, based on the design capacity or maximum production capacity of the source and 8760 hours per year before the application of capture systems or control devices.
- (53) "Pretreatment wash primer" means a coating which contains a minimum of 0.5% acid by weight for surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.
- (54) "Printed interior panels" means panels whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed.
- (55) "Printing" means the formation of words, designs and pictures, usually by a series of application rolls each with only partial coverage.
- (56) "Prime coat" means the first of two or more films of coating applied in an operation.
- (57) "Publication rotogravure printing" means rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

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- "Reasonably Available Control Technology" or "RACT" means (58)the lowest emission limitation that a particular source or source category is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. (59)"Roll printing" means the application of words, designs and pictures to a substrate by means of hard rubber or steel rolls. "Sealant" means a coating applied for the purpose of filing (60) voids and providing a barrier against penetration of water, fuel or other fluids or vapors. "Specialty Printing" means all gravure and flexographic (61) operations which print a design or image, excluding publication gravure and packaging printing. Specialty Printing includes printing on paper plates and cups, patterned gift wrap, wallpaper, and floor coverings. "Splash filling" means the filling of a delivery vessel or (62) stationary storage tanks through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled. "Source" means any building, structure facility, installation or combination thereof which emits or is (63) capable of emitting air contaminants to the atmosphere and is located on one or more contiguous or adjacent properties and is owned or operated by the same person or by persons under common control. "Source category" means all sources of the same type or (64)classification. "Submerged fill" means any fill pipe or hose, the discharge (65) opening of which is entirely submerged when the liquid is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean any fill pipe, the discharge of which is entirely submerged when the liquid level is 18 inches, or is twice the diameter of the fill pipe, whichever is greater, above the bottom of the tank. "Thin particleboard" means a manufactured board 1/4 inch or (66) less in thickness made of individual wood particles which have been coated with a binder and formed into flat sheets by pressure. (67) "Thirty-day rolling average" means any value arithmetically averaged over any consecutive thirty days. "Tileboard" means panelling that has a colored waterproof (68)surface coating. (69)"Topcoat" means a coating applied over a primer or
 - intermediate coating for purposes such as appearance, identification or protection.

- (70) "True Vapor Pressure" means the equilibrium pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from Floating Roof Tanks", February, 1980.
- (71) "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.
- (72) "Vapor-mounted" means a primary seal mounted so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the primary seal, the tank shell, the liquid surface, and the floating roof.
- "Volatile Organic Compound", or "VOC", means any organic (73)compound which participates in atmospheric photochemical reactions to form ozone; that is, any precursor organic compound which would be emitted during use, application, curing or drying of a surface coating, solvent, or other material. Excluded from this category are those compounds which the U.S. Environmental Protection Agency classifies as being of negligible photochemical reactivity which includes methane, ethane, methylene chloride, 1,1,1-trichloroethane (methyl chloroform), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), and chloropentafluoroethane (CFC-115).

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Limitations and Requirements

General Requirements for New and Existing Sources 340-22-104

- Notwithstanding the emission limitations in these rules (1)OAR 340-22-100 through 340-22-300, all new major sources or major modifications at existing sources, located within the areas cited in section (2) of this rule, shall comply with OAR 340-20-220 through 340-20-276 (New Source Review).
- (2)All new and existing sources inside the following areas. shall comply with the General Emission Standards for Volatile Organic Compounds:
 - (a) Portland-Vancouver Air Quality Maintenance Area;
 - (b) Medford-Ashland Air Quality Maintenance Area;
 - (c) Salem Area Transportation Study (SATS) Area.
- VOC sources located outside the areas cited in section (2) (3) of this rule are exempt from the General Emission standards for Volatile Organic Compounds.
- (4) All new and existing sources inside the designated nonattainment areas identified in section (2) of this rule shall apply Reasonably Available Control Technology (RACT) subject to the categorical RACT requirements set forth inf these rules] OAR 340-22-100 through 340-22-300, or as described in sections (5) and (6) of this rule. Compliance with the conditions set forth in OAR 340-22-f106]100 through 340-22-300 shall be presumed to satisfy the RACT requirement.
- Sources for which no categorical RACT requirements exist (5) and which have potential emissions before add-on equipment of over 100 tons per year (TPY) of VOC from aggregated, non-regulated emission units, shall have RACT requirements developed on a case-by-case basis by the Department. A source may request RACT not be applied by demonstrating to the Department that potential emissions are below 100 tons due to a permanent reduction in production or capacity. Once a source becomes subject to RACT requirements underf these-rules] OAR 340-22-100 through 340-22-300, it shall continue to be subject to RACT, unless emissions fall below 100 tons and the source requests that RACT be removed, by demonstrating to the Department that potential emissions are below 100 tons due to a permanent reduction in production or capacity.
- Within 3 months of written notification by the Department (6) of the applicability of this rule, or, for good cause shown, up to an additional 3 months as approved by the Department, the source shall submit to the Department.a complete analysis of RACT for each category of emission unit at the source, taking into account technical and economic feasibility of available control technology, and the emission reductions each technology would provide. This analysis does not need to include any emission units

subject to a specific RACT requirement under [these-rules] OAR 340-22-100 through 340-22-300. These RACT requirements approved by the Department shall be incorporated in the source's Air Contaminant Discharge Permit, and shall not become effective until approved by EPA as a source specific SIP revision. The source shall have one year from the date of notification by the Department of EPA approval to comply with the applicable RACT requirements.

(7) Failure by a source to submit a RACT analysis required by section (6) of this rule shall not relieve the source of complying with a RACT determination established by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Exemptions

340-22-106 Natural gas-fired afterburners installed for the purpose of complying with [these rules] OAR 340-22-100 through 340-22-300 shall be operated during the months of May, June, July, August, and September. During other months, the afterburners may be turned off with prior written Departmental approval, provided that the operation of such devices is not required for purposes of occupational health or safety, or for the control of toxic substances, malodors, or other regulated pollutants, or for complying with visual air contaminant limitations.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86

Compliance Determination

340-22-107

(1) Certification and test procedures <u>for a listed in each</u> specific section and on file<u>]</u> required by OAR 340-22-100 through 340-22-300 shall be conducted in accordance with the

Department's Source Sampling Manual. Applicants are encouraged to submit designs approved by other air pollution control agencies where VOC control equipment has been developed. Construction approvals and proof of compliance will, in most cases, be based on Departmental evaluation of the source and controls.

- (2) Approval by the Department of alternative methods for demonstrating compliance where specified and allowed in{ these rules] OAR 340-22-100 through 340-22-300, including approval of equivalent testing methods for determining compliance, shall be subject to review and approval by EPA.
- (3) Sources subject to the requirements in OAR 340-22-170 and 340-22-175 of these rules which cannot meet these requirements upon the effective date of these these shall be exempted from the enforcement provisions in OAR 340-12-041 for 60 days from the effective date of these rules through July 16, 1991. These sources may be placed on compliance schedules through issuance of permit addendums, pursuant to OAR 340-20-032.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>[468.020, 468.280 & 468.295]</u> <u>468 & 468A</u> Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; Renumbered from 340-22-106(3) & (4); DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Applicability of Alternative Control Systems 340-22-108 [DEQ 23-1980, f. & ef. 9-26-80; Repealed by DEQ 5-1983, f. & ef. 4-18-83]

Gasoline Dispensing Facilities 340-22-110

(1) No person may transfer or cause or allow the transfer of gasoline from any delivery vessel which was filled at a Bulk

Gasoline Terminal or nonexempted Bulk Gasoline Plant into any gasoline dispensing facility of less than 40,000 gallon capacity unless:

(a) The tank is filled by submerged fill;

- (b) A vapor balance system is used which consists of a Certified Underground Storage Tank Device capable of collecting the vapor from volatile organic liquids and gases so as to prevent their emission to the outdoor atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place;
- (c) The vapors are processed by a system demonstrated to the satisfaction of the Department to be of equal effectiveness; or
- (d) All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order. No gasoline delivery shall take place unless the vapor return hose is connected by the delivery truck operator, if required by subsection (b) of this section.
- (2) Exemptions and Limitations:
 - (a) In the Portland-Vancouver AQMA, no person shall deliver gasoline to a gasoline dispensing facility unless the gasoline vapor is handled as required in subsection (1)(b) and (c) of this rule. Gasoline dispensing facilities with a monthly throughput of 10,000 gallons or less of gasoline (thirty-day rolling average) are exempt from these requirements;
 - (b) In the Medford-Ashland AQMA, all existing storage tanks at gasoline dispensing facilities with a rated capacity of 1,000 gallons or less shall be exempt from the submerged fill requirement in subsection (1) (a) of this rule;
 - (c) Transfers made to storage tanks of gasoline dispensing facilities equipped with floating roofs or their equivalent shall be exempt from[these rules] OAR 340-22-100 through 340-22-300;
 - (d) Stationary gasoline storage containers of less than 2,085 liters (550 gallons) used for agricultural purposes shall be exempt from[these rules] OAR 340-22-100 through 340-22-300;
 - (e) Stationary gasoline storage tanks with offset fill lines, welded-in drop tubes, or fill pipes of less than 3" diameter, if installed before January 1, 1979, shall be exempt from [these rules] OAR 340-22-100 through 340-22-300.

(3) Compliance with subsection (1)(b) of this rule shall be determined by verifications of use of equipment identical to equipment most recently approved and listed for such use by the Department or by testing in accordance with Method 30 on file with the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 16-1983, f. & ef. 10-19-83; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Bulk Gasoline Plants and Delivery Vessel(s) 340-22-120

- (1) No person shall transfer or allow the transfer of gasoline to or from a bulk gasoline plant unless:
 - (a) Each stationary storage tank and each delivery vessel uses submerged fill when transferring gasoline; and
 - (b) The displaced vapors from filling each tank and each delivery vessel are prevented from being released to the atmosphere through use of a vapor tight vapor balance system, or equivalent system as approved in writing by the Department. All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order.
- (2) Exemptions and Limitations:
 - (a) Bulk gasoline plants located within the Portland-Vancouver AQMA which transfer less than 4,000 gallons of gasoline per day <u>f(]on a</u> thirty-day rolling average[)] shall be exempt from the vapor balance requirement in OAR 340-22-110(1)(b);

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 - (b) Bulk gasoline plants which deliver qasoline to dispensing facilities in the Portland-Vancouver AQMA with a monthly throughput of less than 10,000 gallons (thirty-day rolling average) of gasoline are exempt from the vapor balance requirement in OAR 340-22-110(1)(b), providing the gasoline delivery trucks are used exclusively for the delivery of gasoline to dispensing facilities also exempt from this requirement;
 - (c) Bulk gasoline plants located in the Medford-Ashland AQMA, or in the Salem SATS, are exempt from the requirements in OAR 340-22-110(1)(b);
 - (d) Each stationary gasoline storage tank may release vapor to the atmosphere through a pressure relief valve set to release at the highest possible pressure {() accordance with State or local fire codes, or the National Fire Prevention Association guidelines{)} and no less than 3.4 kPa (0.50 psi) or some other setting approved in writing by the Department;
 - (e) Gasoline shall be handled in a manner to prevent spillage, discharging into sewers, storage in open containers, or handled in any other manner that would result in evaporation. If more than five gallons are spilled, the operator shall report the spillage in accordance with OAR 340-20-350 to 340-20-380.
- (3) Compliance with subsection (1)(a) of this rule shall be determined by visual inspection to ensure minimal spillage of gasoline and proper installation of bottom loading couples.
- (4) Compliance with subsection (1)(b) of this rule shall be determined by verification of use of equipment approved by the Department and/or by testing and monitoring in accordance with applicable portions of OAR 340-22-137 and/or Method 31 and/or 32 on file with the Department.
- (5) The owner or operator of a gasoline delivery vessel shall maintain the vessel to be vapor tight at all times, in accordance with OAR 340-22-137(1), if such vessel is part of a vapor balance system required by[these rules] OAR 340-22-100 through 340-22-300.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

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Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Bulk Gasoline Terminals

340-22-130

- (1) No terminal owner or operator, shall allow volatile organic compounds (VOC) to be emitted into the atmosphere in excess of 80 milligrams of VOC per liter of gasoline loaded from the operation of loading truck tanks, and truck trailers at bulk gasoline terminals with a daily throughputs of greater than 76,000 liters (20,000 gallons) per day of gasoline (determined by a thirty-day rolling average):
 - (a) The owner or operator of a gasoline loading terminal shall only allow the transfer of gasoline between the facility and a truck tank or a truck trailer when a current leak test certification for the delivery vessel is on file with the terminal or a valid inspection sticker <u>{(]as required by</u> OAR 340-22-137(1)(c){)} is displayed on the delivery vessel;
 - (b) The owner or operator of a truck tank or a truck trailer shall not make any connection to the terminal's gasoline loading rack unless the gasoline delivery vessel has been tested in accordance with OAR 340-22-137(1);
 - (c) The truck driver or other operator who fills a delivery truck tank and/or trailer tank shall not take on a load of gasoline unless the vapor return hose is properly connected;
 - (d) All equipment associated with the vapor recovery system shall be maintained to be vapor tight and in good working order.
- (2) Compliance with section (1) of this rule shall be determined by testing in accordance with Method 33 on file with the Department. The method for determining compliance with section (1) of this rule are delineated in 40 CFR Part 60, Subpart XX, §60.503.
- (3) Bulk Gasoline terminals shall comply with the following within the limits of section (1) of this rule:

- (a) All displaced vapors and gases during tank truck gasoline loading operations are vented only to the vapor control system;
- (b) The loading device must not leak when in use. The loading device shall be designed and operated to allow no more than 10 cubic centimeters drainage per disconnect on the basis of 5 consecutive disconnects;
- (c) All loading liquid lines shall be equipped with fittings which make vapor-tight connections and which close automatically and immediately when disconnected;
- (d) All vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically and immediately when disconnected or which contain vapor-tight unidirectional valves;
- (e) Gasoline is handled in a manner to prevent its being discarded in sewers or stored in open containers or handled in any manner that would result in evaporation. If more than 5 gallons are spilled, the operator shall report the spillage in accordance with OAR 340-20-350 to 340-20-380;
- (f) The vapor collection system is operated in a manner to prevent the pressure therein from exceeding the tank truck or trailer pressure relief settings.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

340-22-133 [Renumbered to 340-33-130(2)] **340-22-136** [Renumbered to 340-22-130(3)]

Testing Vapor Transfer and Collection Systems 340-22-137

- (1) No person shall allow a vapor-laden delivery vessel subject to OAR 340-22-120(5) to be filled or emptied unless the delivery vessel:
 - (a) Is tested annually according to the test method 32 on file with the Department, or CFR Part 60, EPA Method 21 or 27, or California Air Resources Board Method 2-5;
 - (b) Sustains a pressure change of no more than 750 pascals (3 inches of H_2O) in 5 minutes when pressurized to a gauge pressure of 4,500 pascals (18 inches of H_2O) or evacuated to a gauge pressure of 1,500 pascals (6 inches of H_2O) during the testing required in subsection (1)(a) of this rule; and
 - (c) Displays a sticker near the Department of Transportation test date markings required by 49 CFR 177.824h, which:
 - (A) Shows the year and month that the gasoline tank truck last passed the test required in subsections (1) (a) and (b) of this rule;
 - (B) Shows the identification of the sticker; and
 - (C) Expires not more than one year from the date of the leak-test test, or if tested in California, on the expiration date so specified.
 - (d) Has its vapor return hose connected by the truck operator so that gasoline vapor is not expelled to the atmosphere.
- (2) The owner or operator of a vapor collection system subject to this regulation shall design and operate the vapor collection system and the gasoline loading equipment in a manner that prevents:
 - (a) Gauge pressure from exceeding 4,500 pascals (18 inches of H_2O) and vacuum from exceeding 1,500 pascals (6 inches of H_2O) in the gasoline tank truck being loaded;
 - (b) A reading equal to or greater than 100 percent of the lower explosive limit (LEL, measured as propane) at 2.5 centimeters from all points on the perimeter of a potential leak source when measured by the Method 31 and 33 on file with the Department, or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals; and
 - (c) Visible liquid leaks during loading or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals.

- (3) The Department may, at any time, monitor a gasoline tank truck, vapor collection system, or vapor control system, by the methods on file with the Department, to confirm continuing compliance with sections (1) or (2) of this rule.
 (4) Recordkeeping and Reporting:
 - (a) The owner or operator of a source of volatile organic compounds subject to this <u>frequlation</u> rule shall maintain records of all certification testing and repairs. The records must identify the gasoline tank truck, vapor collection system, or vapor control system; the date of the test or repair; and if applicable, the type of repair and the date of retest. The records must be maintained in a legible, readily available condition for at least two years after the date of testing or repair was completed;
 - (b) Copies of all records and reports under subsection (4)(a) of this rule shall immediately be made available to the Department, upon verbal or written request, at any reasonable time.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [-468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Cutback and Emulsified Asphalt

340-22-140

- (1) Use of any cutback asphalts for paving roads and parking areas is prohibited during the months of April, May, June, July, August, September, and October, except as provided for in section (2) of this rule.
- (2) Slow curing (SC) and medium curing (MC) cutback asphalts are allowed during all months for the following uses and applications:

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- (a) Solely as a penetrating prime coat for aggregate bases prior to paving;
- (b) For the manufacture of medium-curing patching mixes to provide long-period storage stockpiles used exclusively for pavement maintenance; or
- (c) For all uses when the National Weather Service forecast of the high temperature during the 24-hour period following application is below 10° C. (50° F.).
- (3) Rapid curing (RC) grades of cutback asphalt are always prohibited.
- (4) (a) Use of emulsified asphalts is unrestricted if solvent content is kept at or less than the limits listed below. If these limits are exceeded, then the asphalt shall be classified as medium curing (MC) cutback asphalts, and shall be limited to only the uses permitted by section (2) of this rule. (Grades of Emulsion Per AASHTO Designation M 208-72 - Maximum Solvent Content by Weight):
 - (A) CRS-1 3%
 - (B) CRS-2 3%
 - (C) CSS-1 3%
 - (D) CSS-1h 3%
 - (E) CMS-2 8%
 - (F) CMS-2h 8%
 - (G) CMS-2S 12%
 - (b) Solvent content is determined by ASTM distillation test D-244.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Petroleum Refineries

340-22-150[These regulations] This rule shall apply to all petroleum refineries:

- (1) Vacuum-Producing Systems:
 - Noncondensable VOC from vacuum producing systems shall be piped to an appropriate firebox, incinerator or to a closed refinery system;
 - (b) Hot wells associated with contact condensers shall be tightly covered and the collected VOC introduced into a closed refinery system.

- (2) Wastewater Separators:
 - (a) Wastewater separators' forebays shall incorporate a floating pontoon or fixed solid cover with all openings sealed totally enclosing the compartmented liquid contents, or a floating pontoon or double deck-type cover equipped with closure seals between the cover edge and compartment wall;
 - (b) Accesses for gauging and sampling shall be designed to minimize VOC emissions during actual use. All access points shall be closed with suitable covers when not in use.
- (3) Process Unit Turnaround:
 - (a) The VOC contained in a process unit to be depressurized for turnaround shall be introduced to a closed refinery system, combusted by a flare, or vented to a disposal system;
 - (b) The pressure in a process unit following depressurization for turnaround shall be less than 5 psig before venting to the ambient air.
- (4) Maintenance and Operation of Emission Control Equipment: Equipment for the reduction, collection or disposal of VOC shall be maintained and operated in a manner commensurate with the level of maintenance and housekeeping of the overall plant.
- (5) Recordkeeping: The owner or operator shall maintain a record of process unit turnarounds including an approximation of the quantity of VOC emitted to the atmosphere. Records shall be maintained for two years.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] **468 & 468A** Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 8-1991, f. & cert. ef. 5-16-91

Petroleum Refinery Leaks

340-22-153

- (1) All persons operating petroleum refineries shall comply with the following rules this section concerning leaks:
 - (a) The owner or operator of a petroleum refinery complex, upon detection of a leaking component, which has a volatile organic compound concentration exceeding 10,000 ppm when tested in the manner described below shall:

- (A) Include the leaking component on a written list of scheduled repairs; and
- (B) Repair and retest the component within 15 days.
 (b) Except for safety pressure relief values, no owner or operator of a petroleum refinery shall install or operate a value at the end of a pipe or line containing volatile organic compounds unless the pipe or line is sealed with a second value, a blind flange, a plug, or a cap. The sealing device may be removed only when a sample is being taken during maintenance operations;
- (c) Pipeline valves and pressure relief valves in gaseous volatile organic compound service shall be marked in some manner that will be readily obvious to both refinery personnel performing monitoring and the Department.
- (2) Testing Procedures: Testing and calibration procedures to determine compliance with this <u>fregulation</u> rule shall be done in accordance with EPA Method 21.
- (3) Monitoring, Recordkeeping, Reporting:
 - (a) The owner or operator of a petroleum refinery shall maintain, as a minimum, records of all testing conducted under this rule; plus records of all monitoring conducted under subsections (b) and (c) of this section;
 - (b) The owner or operator of a petroleum refinery subject to this <u>frequlation</u> shall:
 - (A) Monitor yearly by the methods referenced in section (2) of this rule all:
 - (i) Pump seals;
 - (ii) Pipeline valves in liquid service; and
 - (iii) Process drains.
 - (B) Monitor quarterly by the methods
 - referenced in section (2) of this rule all:
 - (i) Compressor seals;
 - (ii) Pipeline valves in gaseous service; and
 (iii) Pressure relief valves in gaseous service.
 - (C) Monitor weekly by visual methods all pump seals;
 - (D) Monitor immediately any pump seal from which liquids are observed dripping;
 - (E) Monitor any relief valve within 24 hours after it has vented to the atmosphere; and
 - (F) Monitor immediately after repair of any component that was found leaking.
 - (c) Pressure relief devices which are connected to an operating flare header, vapor recovery device, inaccessible valves, storage tank valves, or valves

that are not externally regulated are exempt from the monitoring requirements in subsection (b) of this section;

- (d) The owner or operator of a petroleum refinery, upon the detection of a leaking component, shall affix a weatherproof and readily visible tag bearing an identification number and the date the leak is located to the leaking component. This tag shall remain in place until the leaking component is repaired;
- (e) The owner or operator of a petroleum refinery, upon the completion of each yearly and/or quarterly monitoring procedure, shall:
 - (A) Submit a report to the Department on the 15th day of January, April, July, and September, listing the leaking components that were located but not repaired within the required time limit in subsection (1)(a) of this rule;
 - (B) Submit a signed statement attesting to the fact that, with the exception of those leaking components listed in paragraph (A) of this subsection, all monitoring and repairs were performed as stipulated.
- (f) The owner or operator of a petroleum refinery shall maintain a leaking component monitoring log which shall contain, at a minimum, the following data:
 - (A) The name of the process unit where the component is located;
 - (B) The type of component (e.g., valve, seal);
 - (C) The tag number of the component;
 - (D) The date on which a leaking component is discovered;
 - (E) The date on which a leaking component is repaired;
 - (F) The date and instrument reading of the recheck procedure after a leaking component is repaired;
 - (G) A record of the calibration of the monitoring instrument;
 - (H) Those leaks that cannot be repaired until turnaround, (exceptions to the 15 day requirement of paragraph (1)(a)(B) of this rule); and
 - (I) The total number of components checked and the total number of components found leaking.
- (g) Copies of all records and reports required by this section shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted;

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- (h) Copies of all records and reports required by this section shall immediately be made available to the Department upon verbal or written request at any reasonable time;
- (i) The Department may, upon written notice, modify the monitoring, recordkeeping and reporting requirements.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Liquid Storage

340-22-160

- (1) Owners or operators which have tanks storing methanol or other volatile organic compound liquids with a true vapor pressure, as stored, greater than 10.5 kPa (kilo Pascals) (1.52 psia), at actual monthly average storage temperatures, and having a capacity greater than 150,000 liters (approximately 39,000 gallons) shall comply with one of the following:
 - (a) Meet the equipment specifications and maintenance requirements of the federal standards of performance for new stationary sources - Storage Vessels for Petroleum Liquids, 40 CFR 60 Subpart K, and Ka, as amended by Federal Register, April 4, 1980, pages 23379 through 23381;
 - (b) Be retrofitted with a floating roof or internal floating cover using at least a nonmetallic resilient seal as the primary seal meeting the equipment specifications in the federal standards referred to in subsection (a) of this section or its equivalent.
- (2) All seals used in subsections (1)(b) and (c) of this rule are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears or other openings.
- (3) All openings, except stub drains and those related to safety (such as slotted gage wells), are to be sealed with suitable closures. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place; except for slotted gage wells which must have floating seals with one half inch edge gaps or less.
- (4) Secondary Seals:

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- (a) Applicability: Subsection (c) of this section applies to all VOC liquid storage vessels equipped with external floating roofs, having capacities greater than 150,000 liters (39,000 gallons) <u>except as indicated in</u> paragraph (H) of subsection (c) of this section;
- (b) Exemptions: Subsection (c) of this section does not apply to petroleum liquid storage vessels which:
 - (A) Are used to store waxy, heavy pour crude oil;
 - (B) Have capacities less than 1,600,000 liters (420,000 gallons) and are used to store produced crude oil and condensate prior to lease custody transfer;
 - (C) Contain a VOC liquid with a true vapor pressure of less than 10.5 kPa (1.5 psia) where the vapor pressure is measured at the storage temperature;
 - (D) Contain a VOC liquid with a true vapor pressure less than 27.6 kPa (4.0 psia):
 - (i) Are of welded construction; and
 - (ii) Presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or other closure device of demonstrated equivalence approved by the Department; or
 - (E) Are of welded construction, equipped with a metallic-type shoe primary seal and has a secondary seal from the top of the shoe seal to the tank wall (shoemounted secondary seal).
- (c) No owner of a VOC liquid storage vessel subject to this rule shall store VOC liquid in that vessel unless:
 - (A) The vessel has been fitted with:
 - (i) A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or
 - (ii) A closure or other device which controls VOC emissions with an effectiveness equal to or greater than a seal required under subparagraph (A)(i) of this subsection as approved in writing by the Department.
 - (B) All seal closure devices meet the following requirements:
 - (i) There are no visible holes, tears, or other openings in the seal(s) or seal fabric;

- (ii) The seal(s) are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and
- (iii) For vapor mounted seals, the accumulated area of gaps exceeding 0.32 cm (1/8 inch) in width between the secondary seal and the tank wall are determined by the method in subsection (d) of this section and shall not exceed 21.2 cm² per meter of tank diameter (1.0 in² per foot of tank diameter).
- (C) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are:
 - (i) Equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and
 - (ii) Equipped with projections into the tank which remain below the liquid surface at all times.
- (D) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- (E) Rim vents are set to open only when the roof is being floated off the leg supports or at the manufacturer's recommended setting;
- (F) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90 percent of the area of the opening; and
- (G) The owner or operator of a VOC liquid storage vessel with an external floating roof subject to subsection (c) of this section shall:
 - (i) Perform routine inspections semi-annually in order to ensure compliance with paragraphs (A) through this subsection (F) of and the include a shall inspections visual inspection of the secondary seal gap;
 - (ii) Measure the secondary seal gap annually in accordance with subsection (d) of this section when the floating roof is equipped with a vapor-mounted primary seal; and
 - (iii) Maintain records of the types of VOC liquids stored, the maximum true vapor

pressure of the liquid as stored, and the results of the inspections performed in subparagraphs (G)(i) and (ii) of this subsection.

- (H) The owner or operator of a VOC liquid storage vessel having a capacity equal to or less than <u>150,000 liters (39,000 gallons)</u> with an external floating roof[not subject to this regulation], but containing a VOC liquid with a true vapor pressure greater than 7.00 kPa (1.0 psi), shall maintain records of the average monthly storage temperature, the type of liquid, and the maximum true vapor pressure for all VOC liquids with a true vapor pressure greater than 7.0 kPa;
- (I) The owner or operator of a VOC liquid storage vessel subject to this <u>fregulation</u> rule, shall submit to the Department, as a minimum, annual reports summarizing the inspections;
- (J) Copies of all records and reports under paragraphs (G) (H), and (I) of this subsection shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted;
- (K) Copies of all records and reports under this section shall immediately be made available to the Department, upon verbal or written request, at any reasonable time;
- (L) The Department may, upon written notice, require more frequent reports or modify the monitoring and recordkeeping requirements, when necessary to accomplish the purposes of this rule.
- (d) Secondary Seal Compliance Determination:
 - (A) The owner or operator of any volatile organic compound source required to comply with section
 (4) of this rule shall demonstrate compliance by the methods of this section or an alternative method approved by the Department;
 - (B) A person proposing to conduct a volatile organic compound emissions test shall notify the Department of the intent to test not less than 30 days before the proposed initiation of the tests so the Department may observe the test. The notification shall contain the information required by, and be in a format approved by the Department;
 - (C) Compliance with subparagraph (4)(c)(B)(iii) of this rule shall be determined by:

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- (i) Physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (1/8 inch) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and tank wall; and
- (ii) Summing the area of the individual gaps.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [-468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Surface Coating in Manufacturing 340-22-170

- (1) No person shall operate a coating line which emits into the atmosphere volatile organic compounds in excess of the limits in section (5) of this rule, expressed as pounds VOC per gallon of coating applied, excluding water, unless an alternative emission limit is approved by the Department pursuant to section (3) of this rule or emissions are controlled to an equivalent level pursuant to section (7) of this rule.
- (2) Exemptions:
 - (a) This rule does not apply to airplanes painted out of doors in open air; automobile and truck refinishing; customized top coating of automobiles and trucks, if production is less than 35 vehicles per day; marine vessels and vessel parts painted out in the open air; flat wood coating; wood furniture and wood cabinets; wooden doors, mouldings, and window frames; machine staining of exterior wood siding; high temperature coatings (for service above 500° F.); lumber marking coatings; potable water tank inside coatings; high performance inorganic zinc coatings, air dried, applied to fabricated steel; and markings by stencil for railroad cars;

- This rule does not apply to: (b)
 - Sources [, regulated by this rule,] whose (A) potential emissions from activities identified in section (5) of this rule before add on controls of volatile organic compounds are less than 10 tons per year (or 3 lb. VOC/hr or 15 lb. VOC/day actual); or
 - (B) exclusively for Sources used chemical or physical analysis or determination of product quality and commercial acceptance (such as research facilities, pilot plant operations, and laboratories) unless:
 - (i) The operation of the source is an integral part of the production process; or
 - (ii) The emissions from the source exceed 363 kilograms (800 pounds) in any calendar month.
- (3)Exceptions:
 - On a case-by-case basis, the Department may approve (a) exceptions to the emission limits specified in section (5) of this rule, upon documentation by the source that an alternative emission limit would satisfy the federal criteria for reasonably available control technology (RACT);
 - (b) Included in this documentation must be a complete analysis of technical and economic factors which:
 - **Prevent the source from using both compliance** (A) coatings and pollution control equipment; and
 - (B) Justify the alternative emission limit sought by the source.
 - (C) The alternative emission limit approved by the Department shall be incorporated into the source's Air Contaminant Discharge Permit and shall not become effective until approved by EPA as a source specific SIP revision.
- (4) Applicability: This rule applies to each coating line, which includes the application area(s), flashoff area(s), air and forced air drier(s), and oven(s) used in the surface coating of the metal parts and products in subsections (5) (a) through (j) of this rule.
- (5) Process and Limitation: These emission limitations shall be based on a daily average except subsection (5)(e) of this rule shall be based on a monthly average. If more than one emission limitation in this rule applies to a specific coating, then the most stringent emission limitation shall be applied:

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(a)	Can Coating:	
	(A) Sheet basecoat (exterior and interior) and	
	over-varnish; two-piece can exterior (basecoat	
	and over-varnish) 2.8 lb/gal.	
	(B) Two- and three-piece can interior and exterior	
	body spray, two-piece can exterior end (spray or	
	roll coat) 4.2 lb/gal.	
	(C) Three-piece can side-seam spray . 5.5 lb/gal.	
	(D) End sealing compound 3.7 lb/gal.	
	(E) End Sealing Compound for fatty foods	
	Fabric Coating3.7 lb/gal.University2.9 lb/gal.	
(b)	Fabric Coating $\ldots \ldots \ldots$	
(c)	Vinyi Coating	
(d)	Paper Coating 2.9 lb/gal. Existing Coating of Paper and Film in the	
(e)	Existing Coating of Paper and Film in the	
	Medford-Ashland AQMA	
	*55 lb VOC per 1000 sq. yds. of material per pass.	
(f)	Auto and Light Duty Truck Coating:	
	(A) Prime 1.9 lb/gal.	
	(B) Topcoat 2.8 lb/gal.	
	(C) Repair 4.8 lb/gal.	
(g)	Metal Furniture Coating 3.0 lb/gal.	
(h)	Magnet Wire Coating 1.7 lb/gal.	
(i)	Large Appliance Coating 2.8 lb/gal.	
(j)	Miscellaneous Products and Metal Parts:	
	(A) Clear Coatings 4.3 lb/gal.	
	(B) Force Air Dried or Air Dried 3.5 lb/gal.	
	(C) Extreme Performance Coatings 3.5 lb/gal.	
	(D) Other Coatings (i.e., Powder, oven	
	dried) 3.0 lb/gal.	
	(E) High Performance Architectural	
()	Coatings	
	iance Determination: Compliance with this rule shall be	
	mined by testing in accordance with 40 CFR Part 60 EPA	
Metho		
	alent plant specific method approved by and on file with	
	epartment. The limit in section (1) of this rule of VOC	
	e coating is based upon an assumed solvent density, and assumptions unique to a coating line; where conditions	
	r, such as a different solvent density, a plant specific	
	developed pursuant to the applicable Control Technology	
	line document may be submitted to the Department for	
approv	tion Method: The emission limits of sections (3) and (5)	
	is rule shall be achieved by:	
	The application of low solvent content coating	
iul	THE APPTICATION OF TOW SOTACHE CONFERE COGFING	

 (a) The application of low solvent content coating technology;

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(6)

(7)

- (b) An incineration system which oxidizes at least 90.0 percent of the nonmethane volatile organic compounds entering the incinerator (VOC measured as total combustible carbon) to carbon dioxide and water; or
- (c) An equivalent means of VOC removal. The equivalent means must be approved by the Department and will be incorporated in the source's Air Contaminant Discharge Permit, and shall not become effective until approved by EPA as a source-specific SIP revision. Other alternative emission controls approved by the Department and allowed by EPA may be used to provide an equivalent means of VOC removal.
- (8) Recordkeeping Requirements:
 - (a) A current list of coatings shall be maintained which provides all the coating data necessary to evaluate compliance, including the following information, where applicable:
 - (A) Coating catalyst and reducer used;
 - (B) Mix ratio of components used;
 - (C) VOC content of coating as applied; and
 - (D) Oven temperature.
 - (b) Where applicable, a monthly record shall be maintained indicating the type and amount of solvent used for cleanup and surface preparation;
 - (c) Such records shall be retained and available for inspection by the Department for a period of two years.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>[468.020, 468.280 & 468.295] 468 & 468A</u> Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

340-22-173 [Renumbered to 340-22-170(5)]

Aerospace Component Coating Operations

- 340-22-175
- (1) No owner or operator of an aero-space component coating facility shall emit into the atmosphere volatile organic compounds in excess of the following limits, expressed as

pounds VOC per gallon of coating applied, excluding water, unless an alternative emission limit is approved by the Department pursuant to section (4) of this rule or emissions to the atmosphere are controlled to an equivalent level pursuant to section (10) of this rule: 2.9 lb/gal. (a) 2.8 lb/gal. (b) Electric or Radiation Effect Coating . (C) 6.7 lb/gal. (d) Extreme Performance Interior Topcoat . 5.0 lb/gal. 5.0 lb/gal. (e) Fire Insulation Coating (f) Fuel Tank Coating 6.0 lb/gal. 6.0 lb/gal. (g) 5.0 lb/gal. (h) 3.5 lb/gal. (i) Self-Priming Topcoat (j) 5.0 lb/gal. Pretreatment Wash Primer 6.5 lb/qal. (k) Sealant Bonding Primer 6.0 lb/gal. (1)

- (2) After January 1, 1992, the emission limits for coatings in subsections (1)(d), (j), and (k) of this rule, shall not exceed 3.5 lb/gal.
- (3) Exemptions: This rule does not apply to the following:
 - (a) The exterior of fully assembled airplanes painted out of doors, high temperature coatings (for conditions over 500° F.), adhesive bonding primer, flight test coatings, and space vehicle coatings;
 - (b) Sources [, regulated by this rule,] whose potential emissions from activities identified in sction (1) of this rule before add on controls of volatile organic compounds are less than 10 tons per year (or 3 lb. VOC/hr or 15 lb. VOC/day actual);
 - (c) The use of separate coating formulations in volumes of less than 20 gallons per calendar year. No source shall use more than a combined total of 250 gallons per calendar year of exempt coatings. Records of coating usage shall be maintained as per section (8) of this rule; or
 - (d) Sources used exclusively for chemical or physical analysis or determination of product quality and coating performance (such as research facilities and laboratories) unless:
 - (A) The operation of the source is an integral part of the production process; or
 - (B) The emissions from the source exceed 363 kilograms (800 pounds) in any calendar month.

- (4) Exceptions:
 - (a) On a case-by-case basis, the Department may approve exceptions to the emission limits specified in section (1) of this rule, upon documentation by the source that an alternative emission limit would satisfy the federal criteria for reasonably available control technology (RACT);
 - (b) Included in this documentation must be a complete analysis of technical and economic factors which:
 - (A) Prevent the source from using both compliance coatings and pollution control equipment; and
 - (B) Justify the alternative emission limit sought by the source.
 - (c) The alternative emission limit approved by the Department shall be incorporated into the source's Air Contaminant Discharge Permit and shall not become effective until approved by EPA as a source-specific SIP revision.
- (5) Applicability: This rule[s] applies to each coating line, which includes the application area(s), flashoff area(s), air and force air drier(s), and oven(s) used in the surface coating of aerospace components in subsection (1)(a) through (m) of this rule. If more than one emission limitation in this rule applies to a specific coating, then the most stringent emission limitation shall be applied.
- (6) Solvent Evaporation Minimization:
 - (a) Closed containers shall be used for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup;
 - (b) Fresh or spent solvent shall be stored in closed containers;
 - (c) Organic compounds shall not be used for the cleanup of spray equipment unless equipment is used to collect the cleaning compounds and to minimize their evaporation;
 - (d) Containers of coating, catalyst, thinner, or solvent shall not be left open to the atmosphere when not in use.
- (7) Stripper Limitations: No stripper shall be used which contains more than 400 grams/liter (3.3 lbs/gal) of VOC or which has a true vapor pressure of 1.3 kPa (0.19 psia) at actual usage temperature.
- (8) Maskant for Chemical Processing Limitation: No maskant shall be applied for chemical processing unless the VOC emissions from coating operations are reduced by 85 percent, or the coating contains less than 600 grams/liter (5.0 lbs/gal) of VOC of coating excluding water, as applied.

- (9) Compliance determination: Compliance with this rule shall be determined by testing in accordance with 40 CFR Part 60 Appendix A Method 24 for determining the VOC content of the coating materials. Emissions from the coating processes and/or VOC emissions control efficiencies shall be determined by testing in accordance with 40 CFR Part 60 Appendix A Method 18, 25, California Method ST-7, a material balance method, or an equivalent plant specific method approved by EPA and the Department and on file with the Department. The limit in section (1) of this rule of VOC in the coating is based upon an assumed solvent density, and other assumptions unique to a coating line; where conditions differ, such as a different solvent density, a plant specific limit may be submitted to the Department and EPA for approval.
- (10) Reduction Method: The emission limits of section (1) of this rule shall be achieved by:
 - (a) The application of a low solvent content coating technology;
 - (b) A vapor collection and disposal system; or
 - (c) An equivalent means of VOC removal. The equivalent means must be approved by the Department and will be incorporated in the source's Air Contaminant Discharge Permit, and shall not become effective until approved by EPA as a source-specified SIP revision. Other alternative emission controls approved by the Department and allowed by EPA may be used to provide an equivalent means of VOC removal.
- (11) Recordkeeping Requirements:
 - (a) A current list of coatings shall be maintained which provides all of the coating data necessary to evaluate compliance, including the following information, where applicable:
 - (A) A daily record indicating the mix ratio of components used; and
 - (B) The VOC content of the coating as applied.
 - (b) A monthly record shall be maintained indicating the type and amount of solvent used for cleanup and surface preparation;
 - (c) A monthly record shall be maintained indicating the amount of stripper used;
 - (d) Such records shall be retained and available for inspection by the Department for a period of two years.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [-468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 8-1991, f. & cert. ef. 5-16-91

Degreasers

340-22-180 Cold cleaners, open top vapor degreasers, and conveyorized degreasers are exempt from [<u>the following</u>] this rule[s] if they use fluids which are not photochemically reactive. These fluids are: $C_2C1_3F_3$ trichlorotrifluoroethane, also known as Freon 113 or Freon TF; CH_2C1_2 methylene chloride; 1, 1, $1-C_2H_3C1_3$, methyl chloroform, also known as 1-1-1 trichloroethane or chlorothene VG. Cold Cleaners:

- (1) The owner or operator of dip tank cold cleaners shall comply with the<u>f following</u> equipment specifications<u>in this section</u> after April 1, 1980:
 - (a) Be equipped with a cover that is readily opened and closed. This is required of all cold cleaners, whether a dip tank or not;
 - (b) Be equipped with a drainrack, suspension basket, or suspension hoist that returns the drained solvent to the solvent bath;
 - (c) Have a freeboard ratio of at least 0.5;
 - (d) Have a visible fill line.
- (2) An owner or operator of a cold cleaner shall be responsible for following the required operating parameters and work practices. The owner shall post and maintain in the work area of each cold cleaner a pictograph or instructions clearly explaining the [following] work practices in this section:
 - (a) The solvent level shall not be above the fill line;
 - (b) The spraying of parts to be cleaned shall be performed only within the confines of the cold cleaner;
 - (c) The cover of the cold cleaner shall be closed when not in use or when parts are being soaked or cleaned by solvent agitation;
 - (d) Solvent-cleaned parts shall be rotated to drain cavities or blind holes and then set to drain until dripping has stopped;

- (e) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste {{}} weight{}} can evaporate into the atmosphere. Handling of the waste must also be done in accordance with the Department's solid and Hazardous Waste Rules, OAR <u>Chapter</u> 340, <u>Division</u> {-}100.
- (3) The owner or operator shall maintain cold cleaners in good working condition and free of solvent leaks.
- (4) If the solvent has a volatility greater than 2.0 kPa (0.3 psi) measured at 38 °C. (100 °F.), or if the solvent is agitated or heated, then the cover must be designed so that it can be easily operated with one hand or foot.
- (5) If the solvent has a volatility greater than 4.3 kPa (0.6 psi) measured at 38 °C. (100 °F.), then the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (6) If the solvent has a volatility greater than 4.3 kPa (0.6 psi) measured at 38 °C. (100 °F.), or if the solvent is heated above 50 °C. (120 °F.), then one of the following solvent vapor control systems must be used:
 - (a) The freeboard ratio must be equal to or greater than 0.70; or
 - (b) Water must be kept over the solvent, which must be insoluble in and heavier than water; or
 - (c) Other systems of equivalent control, such as a refrigerated chiller.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Open Top Vapor Degreasers

340-22-183

(1) The owner or operator of all open top vapor degreasers shall comply with the following equipment specifications:

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- (a) Be equipped with a cover that may be readily opened and closed. When a degreaser is equipped with a lip exhaust, the cover shall be located below the lip exhaust. The cover shall move horizontally or slowly so as not to agitate and spill the solvent vapor. The degreaser shall be equipped with at least the following three safety switches:
 - (A) Condenser flow switch and thermostat <u>f- (]to</u> shut<u>fs</u>] off sump heat if coolant is either not circulating or too warm[]];
 - (B) Spray safety switch [- (]to shut[s] off spray pump or conveyor if the vapor level drops excessively, (e.g., greater than 10 cm (4 inches));
 - (C) Vapor level control thermostat <u>[- (]to</u> shut[s] off sump heat when vapor level rises too high[)].
- (b) [Have-the following:]
 - (A) A closed design such that the cover opens only when the part enters or exits the degreaser f(]and when the degreaser starts up, forming a vapor layer, the cover may be opened to release the displaced airf)], and either;
 - (B) A freeboard ratio equal to or greater than 0.75; or
 - (C) A freeboard, refrigerated or cold water, chiller.
- (c) Post a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:
 - (A) Do not degrease porous or absorbent materials such as cloth, leather, wood or rope;
 - (B) The cover of the degreaser should be closed at all times except when processing workloads;
 - (C) When the cover is open the lip of the degreaser should not be exposed to steady drafts greater than 15.3 meters per minute (50 feet/ minute);
 - (D) Rack parts so as to facilitate solvent
 - drainage from the parts;
 - (E) Workloads should not occupy more than one-half of the vapor-air interface area;
 - (F) When using a powered hoist, the vertical speed of parts in and out of the vapor zone should be less than 3.35 meters per minute (11 feet/ minute);
 - (G) Degrease the workload in the vapor zone until condensation ceases;

- (H) Spraying operations should be done within the vapor layer;
- (I) Hold parts in the degreaser until visually dry;
- (J) When equipped with a lip exhaust, the fan should be turned off when the cover is closed;
- (K) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser;
- (L) Water shall not be visible in the solvent stream from the water separator.
- (2) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses, as for example, from dripping drain taps, cracked gaskets, and malfunctioning equipment. Leaks must be repaired immediately.
- (3) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leakproof couplings.
- (4) Still and sump bottoms shall be kept in closed containers.
- (5) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Handling of the waste must also be done in accordance with the Department's Solid and Hazardous Waste Rules, OAR <u>Chapter</u> 340, <u>Division [-]</u>100.
- (6) Exhaust ventilation shall not exceed 20 m³/minute per m² (65 cfm per foot²) of degreaser open area, unless necessary to meet OSHA requirements. Ventilation fans shall not be used near the degreaser opening.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [-468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Conveyorized Degreasers

340-22-186

(1) The owner or operator of conveyorized cold cleaners and conveyorized vapor degreasers shall comply with the following operating requirements:

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- (a) Exhaust ventilation should not exceed 20 cubic meters per minute of square meter (65 cfm per foot²) of degreaser opening, unless necessary to meet OSHA requirements. Workplace fans should not be used near the degreaser opening;
- (b) Post in the immediate work area a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:
 - (A) Rack parts for best drainage;
 - (B) Maintain vertical speed of conveyored parts to less than 3.35 meters per minute (11 feet/minute);
 - (C) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser.
- (2) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses, as for example, from dripping drain taps, cracked gaskets, and malfunctioning equipment. Leaks must be repaired immediately.
- (3) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leakproof couplings.
- (4) Still and sump bottoms shall be kept in closed containers.
 (5) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Handling of the waste must also be done in accordance with the Department's Solid and Hazardous Waste Rules, OAR Chapter 340, Division [-]100.
- (6) All conveyorized cold cleaners and conveyorized vapor degreasers with air/vapor interfaces of 2.0 m² or greater shall have one of the following major control devices installed and operating:
 - (a) Carbon adsorption system, exhausting less than 25 ppm of solvent averaged over a complete adsorption cycle, [(]based on exhaust ventilation of 15 m³/minutes per m² of air/vapor area, when down-time covers are open[)]; or
 - (b) Refrigerated chiller with control effectiveness equal to or better than subsection (a) of this section; or
 - (c) A system with control effectiveness equal to or better than subsection (a) of this section.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [-468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Asphaltic and Coal Tar Pitch Used for Roofing Coating 340-22-190

- (1) No person shall operate or use equipment for melting, heating or holding asphalt or coal tar pitch for the on-site construction, installation, or repair of roofs unless the gas-entrained effluents from such equipment are contained by close fitting covers.
- (2) A person operating equipment subject to this rule shall maintain the temperature of the asphaltic or coal tar pitch below 285 °C. (550 °F.), or 17 °C. (30 °F.) below the flash point whichever is the lower temperature, as indicated by a continuous reading thermometer.
- (3) The provisions of this rule shall not apply to equipment having a capacity of 100 liters (26 gallons) or less; or to equipment having a capacity of 600 liters (159 gallons) or less provided it is equipped with a tightly fitted lid or cover.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 8-1991, f. & cert. ef. 5-16-91

Flat Wood Coating

340-22-200

- (1) This rule applies to all flat wood manufacturing and surface finishing facilities, that manufacture the following products:
 - (a) Printed interior panels made of hardwood plywood and thin particle board;
 - (b) Natural finish hardwood plywood panels; or
 - (C) Hardboard paneling with Class II finishes.

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- (2) This rule does not apply to the manufacture of exterior siding, tileboard, particle board used as a furniture component, or paper or plastic laminates on wood or wood-derived substrates.
- (3) No owner or operator of a flat wood manufacturing facility subject to this <u>fregulation</u> shall emit volatile organic compounds from a coating application system in excess of:
 - (a) 2.9 kg per 100 square meters of coated finished product (6.0 lb/1,000 square feet) from printed interior panels, regardless of the number of coats applied;
 - (b) 5.8 kg per 100 square meters of coated finished product (12.0 lb/1,000 square feet) from natural finish hardwood plywood panels, regardless of the number of coats applied; and
 - (c) 4.8 kg per 100 square meters of coated finished product (10.0 lb/1,000 square feet) from Class II finishes on hardboard panels, regardless of the number of coats applied.
- (4) The emission limits in section (3) of this rule shall be achieved by:
 - (a) The application of low solvent content coating technology; or
 - (b) An incineration system which oxidizes at least 90.0 percent of the nonmethane volatile organic compounds entering the incinerator (VOC measured as total combustible carbon) to carbon dioxide and water; or
 - (c) An equivalent means of VOC removal. The equivalent means must be approved in writing by the Department. The time period used to determine equivalency shall not exceed twenty-four hours.
- (5) A capture system must be used in conjunction with the emission control systems in subsection (4)(b) and (c) of this rule. The design and operation of a capture system must be consistent with good engineering practice and shall be required to provide for an overall emission reduction sufficient to meet the emission limitations in section (3) of this rule.
- (6) Compliance Demonstration:
 - (a) The owner or operator of a volatile organic compound source required to comply with this rule shall demonstrate compliance by the methods of subsection (c) of this section, or an alternative method approved by the Department;

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- (b) A person proposing to conduct a volatile organic compound emissions test shall notify the Department of the intent to test not less than 30 days before the proposed initiation of the tests so the Department may observe the test;
- (c) Test procedures in 40 CFR Part 60 EPA Method 18, 24, or
 25 shall be used to determine compliance with section
 (3) of this rule;
- (d) The Department may accept, instead of the coating analysis required by paragraph (c)(A) of this section, a certification by the coating manufacturer of the composition of the coating, if supported by actual batch formulation records. In the event of any inconsistency between a Method 18, 24, or 25 test and a facility's formulation data, the Method 18, 24, or 25 test will govern;
- (e) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:
 - (A) Exhaust gas temperature of all incinerators;
 - (B) Temperature rise across a catalytic incinerator bed; and
 - (C) Breakthrough of VOC on a carbon absorption unit.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 8-1991, f. & cert. ef. 5-16-91

Rotogravure and Flexographic Printing 340-22-210

(1) No owner or operator of a packaging rotogravure, publication rotogravure, flexographic or specialty printing facility, with the potential to emit before add on controls greater than 90 mg/year (100 ton/year), employing ink containing solvent may operate, cause, allow or permit the operation of the press unless:

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- The volatile fraction of ink, as it is applied to the (a) substrate contains 25.0 percent by volume or less or organic solvent and 75 percent by volume or more of water; or
- (b) The ink as it is applied to the substrate, less water, contains 60.0 percent by volume or more nonvolatile material; or
- The owner or operator installs and operates: (C)
 - (A) A carbon absorption system which reduces the volatile organic emissions from the capture system by at least 90.0 percent by weight;
 - An incineration system which oxidizes at least (B) 90.0 percent of the nonmethane volatile organic compounds (VOC measured as total combustible carbon) to carbon dioxide and water; or
 - (C) alternative volatile organic compound An emissions reduction system demonstrated to have at least a 90.0 percent reduction efficiency, measured across the control system, and has been approved by the Department.
- A capture system must be used in conjunction with the emission control systems in subsection (1)(c) of this rule. The design and operation of a capture system must be consistent with good engineering practice, and shall be required to provide for an overall reduction in volatile organic compound emissions of at least:
 - 75.0 percent where a publication roto-gravure process (a) is employed;
 - (b) 65.0 percent where a packaging rotogravure process is employed; or
 - 60.0 percent where a flexographic printing process is (C) employed.
- Compliance Demonstration: · (3)
 - (a) Upon request of the Department, the owner or operator of a volatile organic compound source shall demonstrate compliance by the methods of this section or an alternative method approved by the Department. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing;
 - (b) A person proposing to conduct a volatile organic compound emissions test shall notify the Department of the intent to test not less than 30 days before the proposed initiation of the tests so the Department may observe the test. The notification shall contain the information required by, and be in a format approved by, the Department;

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(2)

- (c) Test procedures to determine compliance with this rule must be approved by the Department and consistent with:
 - (A) EPA test Method 18, 24, or 25, 40 CFR Part 60;
 or California Method ST-7;
 - (B) The Department may accept, instead of ink-solvent analysis, a certification by the ink manufacturer of the composition of the ink supported solvent, if by actual batch formulation records. In the event of any inconsistency between an EPA Method test and a facility's formulation data, the EPA Method test will govern.
- (d) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:
 - (A) Exhaust gas temperature of all incinerators;
 - (B) Breakthrough of VOC on a carbon adsorption unit; and
 - (C) Temperature rise across a catalytic incinerator bed.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch.[468.020, 468.280 & 468.295] **468 & 468A** Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Perchloroethylene Dry Cleaning 340-22-220

- (1) The owner or operator of a perchloroethylene dry cleaning facility shall:
 - (a) Vent the entire dryer exhaust through a properly functioning carbon adsorption system or equally effective control device;
 - (b) Emit no more than 100 ppmv of volatile organic compounds from the dryer control device before dilution;
 - (c) Immediately repair all components found to be leaking liquid volatile organic compounds;

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- (d) Cook or treat all diatomaceous earth filters so that the residue contains 25 kg or less of volatile organic compounds per 100 kg of wet waste material;
- (e) Reduce the volatile organic compounds from all solvent stills to 60 kg or less per 100 kg of wet waste material;
- (f) Drain all filtration cartridges, in the filter housing, for at least 24 hours before discarding the cartridges;
- (g) When possible, dry all drained cartridges without emitting volatile organic compounds to the atmosphere;
- (h) Any other filtration or distillation system can be used if equivalency is demonstrated. Any system reducing waste losses below 1 kg solvent per 100 kg clothes cleaned will be considered equivalent. For dry-to-dry configuration units, the following shall apply in lieu of subsection (1)(a) and (b) of this rule:
 - (A) The dryer/condenser system must be closed to the atmosphere at all times except when articles are being loaded or unloaded through the door of the machine;
 - (B) The dryer/condenser system must not
 - vent to the atmosphere until the air-vapor stream temperature on the outlet side of the refrigerated condenser is equal to or less than 45 °F.
- (2) Exemptions: The requirements of subsections (1)(a) and (b) of this rule are not applicable to:
 - (a) Coin-operated facilities;
 - (b) Facilities where an absorber or other necessary control equipment cannot be accommodated because of inadequate space; or
 - (c) Facilities with insufficient steam capacity to desorb adsorbers.
- (3) Compliance Demonstration: Compliance to this rule shall be demonstrated as follows:
 - (a) Compliance with subsections (1)(a), (f), and (g) of
 this rule shall be determined by means of a visual inspection;
 - (b) Compliance with subsections (1) (c) of this rule shall be determined by means of a visual inspection of the following components:
 - (A) Hose connections, unions, couplings and valves;
 - (B) Machine door gaskets and seatings;
 - (C) Filter head gasket and seating;
 - (D) Pumps;
 - (E) Base tanks and storage containers;
 - (F) Water separators;

- (G) Filter sludge recovery;
- (H) Distillation unit;
- (I) Diverter valves;
- (J) Saturated lint from lint basket; and
- (K) Cartridge filters.
- (c) Compliance with subsection (1)(b) of this rule shall be determined by:
 - (A) A test consistent with EPA Guideline Series document, "Measurement of Volatile Organic Compounds", EPA-450/2-78-041 and in accordance with EPA Method 23 "Determination of Halogenated Organics from Stationary Sources" (proposed 43 FR 39766, June 11, 1980); or
 - (B) The proper installation, operation, and maintenance of equipment which has been demonstrated to be adequate to meet the emission limits of 100 ppmv.
- (d) Compliance with subsections (1) (d) and (e) of this rule shall be determined by means of the procedure in the "Standard Test Method for Gasoline Diluent in Used Gasoline Engine Oils by Distillation", ANSI/ASTM D322.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [468.020, 468.280 & 468.295] 468 & 468A Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91

Standard for Automotive Gasoline

Rèid Vapor Pressure for Gasoline 340-22-300

- (1) (a) No person shall sell or supply as a fuel for motor vehicles, during the period of May 15 through September 15 of each year, a gasoline having a Reid Vapor Pressure greater than ten and a half pounds per square inch (10.5 psi);
 - (b) This section shall apply to gasoline delivered to retail outlets more than 14 days immediately preceding the period established;

- (c) Gasoline and ethyl alcohol blends of at least 10% by volume (gasohol) are given a one pound per square inch allowance, so as not to exceed an RVP of 11.5 psi.
- (2) (a) As used in this<u>[-regulation]_rule</u>, "gasoline" means any blend of petroleum distillate sold as a motor fuel having a Reid Vapor Pressure of more than four pounds as defined by the most current method of ASTM Method D323, and meeting the other general specifications defined by the most current method of ASTM D439 or D4814;
 - (b) ASTM refers to the standards test methods and procedures published by the American Society for Testing and Materials.
- (3) The Reid Vapor Pressure specified in section (1) of this rule shall be measured according to the procedures established in the most current method of ASTM D323.
- (4) The geographic coverage of this<u>f regulation<u>j</u> rule</u> shall be consistent with boundary specified in ASTM D439, specifically all of Oregon, west of 122 degrees Longitude.
- (5) Test results from samples submitted to the Department by refiners or distributors of gasoline shall be sampled and tested pursuant to methods established by the most current method of ASTM D323. Analysis of all fuel from pipeline, tanker, or other sources outside of the state shall be summarized and forwarded to the Department on a monthly basis. Such reports will be supplied on a form supplied by the Department.
- (6) The Department reserves the right to audit records and to sample gasoline for the purposes of compliance. Samples of petroleum shall be sampled pursuant and tested by methods established by the most current method of ASTM D323 or by methods established under the California Air Resources rule, Title 13 §2251 or Part 80 of Title 40 of the Code of Federal Regulations - Fuel and Fuel Additives.
- (7) Pursuant to ORS 468.130, civil penalties of not more than \$10,000 per day may be assessed for violation of section (1) of this rule at wholesale fuel facilities, including terminals, fleet facilities, cardlocks, and not more than \$2500 per day at retail.
- [(8) The effective date of this section is June 15, 1989.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 11-1989, f. 6-12-89, cert. ef. 6-15-89

Gasoline Vapors from Gasoline Transfer and Dispensing Operations

Purpose

340-22-400

- (1) Gasoline vapors contribute to the formation of ozone. [-These rules] OAR 340-22-400 through 340-22-403 require the control of gasoline vapors from gasoline transfer and dispensing operations.
- (2) [These rules]OAR 340-22-400 through 340-22-403 apply to gasoline dispensing sites located within Clackamas, Multhomah and Washington Counties.

Stat. Auth.: ORS Ch. 468[.295] & 468A Hist.: DEQ 7-1991, f. & cert. ef. 5-7-91 (and corrected 6-7-91)

Definitions

340-22-401 As used in [these rules, unless otherwise required by context] OAR 340-22-400 through 340-22-403:

- (1) "Equivalent control" means the use of alternate operational and/or equipment controls for the reduction of gasoline vapor emissions, that have been approved by the Department, such that the aggregate emissions of gasoline vapor from the facility do not exceed those from the application of defined reasonably available control technology.
- (2) "Gasoline" means any petroleum distillate having a Reid vapor pressure of four pounds per square inch (28 kilopascals) or higher, used as a motor fuel.
- (3) "Gasoline dispensing site" means any site where gasoline is dispensed into vehicle fuel tanks or into portable containers used to fuel any motor from any stationary storage container(s) larger than 550 gallons.
 (4) "Annual throughput" means the amount of gasoline transferred
- (4) "Annual throughput" means the amount of gasoline transferred into or dispensed from a gasoline dispensing site during 12 consecutive months.
- (5) "Stage I vapor collection system" means a system where gasoline vapors are forced from a tank into a vapor-tight holding system or vapor control system through direct displacement by the gasoline being loaded.

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- (6) "Stage II vapor collection system" means a system where at least 90 percent, by weight, of the gasoline vapors that are displaced or drawn from a vehicle fuel tank during refueling are transferred to a vapor-tight holding system or vapor control system.
- (7) "Substantially modified" means a modification of an existing gasoline-dispensing site which involves the addition of one or more new stationary gasoline storage tanks or the repair, replacement or reconditioning of an existing tank.
- (8) "Vapor control systems" means a system that prevents emissions to the outdoor atmosphere from exceeding 4.7 grains per gallon (80 grams per 1,000 liters) of petroleum liquid loaded.

Stat. Auth.: ORS Ch. 468[.295] & 468A Hist.: DEQ 7-1991, f. & cert. ef. 5-7-91 (and corrected 6-7-91)

General Provisions 340-22-402

- (1) No person shall transfer or allow the transfer of gasoline into storage tanks, at gasoline-dispensing sites located in Clackamas, Multhomah or Washington Counties, whose annual throughput exceeds 120,000 gallons, unless the storage tank is equipped with:
 - (a) A stage I vapor collection system consisting of a vapor-tight return line from the storage tank, or its vent, to the gasoline transport vehicle;
 - (b) A properly installed on-site vapor control system connected to a vapor collection system; or
 - (c) An equivalent control system.
- (2) A stage I vapor collection system and submerged filling are not required for storage tanks with a capacity less than 550 gallons. A stage II vapor collection system is not required at gasoline-dispensing sites that are not subject to the stage I requirements of this section.
- (3) No owner and/or operator of a gasoline-dispensing site shall transfer or allow the transfer of gasoline into a motor vehicle fuel tank at gasoline-dispensing sites located in Clackamas, Multnomah or Washington Counties whose annual throughput exceeds 600,000 gallons, unless the gasoline-dispensing site is equipped with a stage II vapor collection system which must be approved by the Department before it is installed.
- NOTES:

-1- Underground piping requirements are described in OAR 340-150-001 through 340-150-003 and 40 CFR 280.20(d). Systems installed according to American Petroleum Institute

Publication 1615, "Installation of Underground Petroleum Storage System" or Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems" or American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System" are considered approved systems.

-2- Above-ground stage II equipment requirements are based on systems recently approved in other states with established stage II program. See the Oregon Department of Environmental Quality, Air Quality Division, for the list of approved equipment. Any other proposed equivalent systems must be submitted to the Department of Environmental Quality, Air Quality Division, for approval before installation.

- (4) Owners and/or operators of gasoline storage tanks, gasoline transport vehicles and gasoline-dispensing sites subject to stage I or stage II vapor collection requirements must:
 - (a) Install all necessary stage I and stage II vapor collection and control systems, and make any modifications necessary to comply with the requirements;
 - (b) Provide adequate training and written instructions to the operator of the affected gasoline-dispensing site and the gasoline transport vehicle;
 - (c) Replace, repair or modify any worn or ineffective component or design element to ensure the vapor-tight integrity and efficiency of the stage I and stage II vapor collection systems; and
 - (d) Connect and ensure proper operation of the stage I and stage II vapor collection systems whenever gasoline is being loaded, unloaded or dispensed.
- (5) Approval of a stage I or stage II vapor collection system by the Department does not relieve the owner and/or operator of the responsibility to comply with other applicable codes and regulations pertaining to fire prevention, weights and measures and safety matters.
- (6) Regarding installation and testing of piping for stage I and stage II vapor collection systems:
 - (a) Piping shall be installed in accordance with standards in OAR 340 Division 150;
 - (b) Piping shall be installed by a licensed installation service provider pursuant to OAR 340 Division 160; and
 - (c) Piping shall be tested prior to being placed into operation by an installation or tank tightness testing service provider licensed pursuant to OAR 340 Division 160.

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NOTE: Test methods are based on methods used in other states with established stage II programs. See the Oregon Department of Environmental Quality, Air Quality Division, for copies of the approved test methods.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468[.295] & 468A Hist.: DEQ 7-1991, f. & cert. ef. 5-7-91 (and corrected 6-7-91)

Compliance Schedules

340-22-403

- (1) Owners of gasoline-dispensing sites subject to the stage I vapor collection requirements of this rule within the Portland Air Quality Maintenance Area are required to be in compliance with all stage I requirements by April 1, 1981.
- (2) Owners of gasoline-dispensing sites subject to the stage I vapor collection requirements of this rule outside the Portland Air Quality Maintenance Area but within Clackamas, Multnomah or Washington Counties must be in compliance with stage I vapor collection requirements by December 31, 1993, or at the time the gasoline-dispensing site is required to install a stage II vapor collection system, whichever is sooner.
- (3) Owners of gasoline-dispensing sites subject to the stage II vapor collection requirements of this rule must be in compliance with stage II vapor collection requirements:
 - (a) For gasoline-dispensing sites whose annual throughput exceeds 1,800,000 gallons, by no later than April 30, 1992;
 - (b) For gasoline-dispensing sites whose annual throughput exceeds 1,080,000 gallons, by no later than April 30, 1993;
 - (c) For gasoline-dispensing sites whose annual throughput exceeds 600,000 gallons, by no later than April 30, 1994; or
 - (d) At the time the gasoline-dispensing site is substantially modified after[the effective date of this rule] May 7, 1991; whichever is sooner.

Stat. Auth.: ORS Ch. 468[.295] & 468A Hist.: DEQ 7-1991, f. & cert. ef. 5-7-91 (and corrected 6-7-91)

Control of Ozone Depleting Chemicals

Purpose and Applicability

340-22-405 The purpose of <u>[these rules] OAR 340-22-405</u> <u>through 340-22-415</u> is to reduce the use of stratospheric ozone depleting chemicals, to recycle those chemicals already in use, and to encourage the use of less dangerous chemicals. The Environmental Quality Commission having determined that equipment for the recovery and recycling of chlorofluorocarbons from automobile air conditioners is affordable and available, intends that<u>[these</u> <u>rules] OAR 340-22-405 through 340-22-415</u> apply to persons handling automobile air conditioners.

Stat. Auth.: ORS Ch. 468[.600 - 468.621] & 468A Hist.: DEQ 31-1990, f. & cert. ef. 8-15-90

Definitions

340-22-410 As used in[these rules, unless otherwise required by context] OAR 340-22-405 through 340-22-415:

- (1) "Automobile" means any self-propelled motor vehicle used for transporting persons or commodities on public roads.
- (2) "Chlorofluorocarbons (CFC)" includes:
 - (a) CFC-11 (trichlorofluoromethane);
 - (b) CFC-12 (dichlorodifluoromethane);
 - (c) CFC-113 (trichlorotrifluoroethane);
 - (d) CFC-114 (dichlorotetrafluoroethane); and
 - (e) CFC-115 ((mono)chloropentafluoroethane).
- (3) "Commission" means the Environmental Quality Commission.
- (4) "Department" means the Department of Environmental Quality.
- (5) "Director" means the Director of the Department of Environmental Quality.
- (6) "Person" means individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.

Stat. Auth.: ORS Ch. 468[.600 - 468.62] & 468A Hist.: DEQ 31-1990, f. & cert. ef. 8-15-90

Requirement for Recycling Automobile Air Conditioning Coolant 340-22-415

(1) Except as provided in section (2) of this rule no person shall engage in the business of installing, servicing, repairing, disposing of, or otherwise treating automobile air conditioners {after August 10, 1991 } without recovering and recycling CFC.

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- (2) Any automobile repair shop that has:
 - (a) Fewer than four employees; or
 - (b) Fewer than three covered bays shall comply with the provisions of section (1) of this rule after August 10, 1992.
- (3) Only recovery and recycling equipment that is certified by Underwriters Laboratory (UL) as meeting the requirements and specifications of UL1963 and the Society of Automotive Engineers (SAE) standards, J1990 and J1991, or other requirements and specifications determined by the Department as being equivalent, shall be used.
- (4) All recovery and recycling equipment shall be operated and maintained at full efficiency and effectiveness according to the manufacturer's directions and guidelines contained in SAE standard J1989.

Stat. Auth.: ORS Ch. 468[.600 - 468.62] & 468A Hist.: DEQ 31-1990, f. & cert. ef. 8-15-90

Motor Vehicle Fuel Specifications for Oxygenated Gasoline

Policy

340-22-440 The Environmental Quality Commission finds and determines that control area responsible parties, distributors and retail outlets are "Indirect Sources" as defined in OAR 340-20-110 (14).

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Definitions

340-22-450 As used in OAR 340-22-460 through OAR 340-22-640:

- (1) "Attest engagement" means a review of nonfinancial records by a CPA.
- (2) "Averaging period" means the period of time over which all gasoline sold or dispensed for use in a control area by any control area responsible party must comply with the average oxygen content standard.
- (3) "Blend" means regular, unleaded, supreme or other trade names for gasoline products containing differing levels of octane.
- (4) "Blender control area responsible party (Blender CAR)" means a person who owns oxygenated gasoline which is sold or dispensed from a control area oxygenate blending facility.

- (5) "Carrier" means any person who transports, stores, or causes the transportation or storage of gasoline at any point in the gasoline distribution network, without taking title to or otherwise having ownership of the gasoline and without altering the quality or quantity of the gasoline.
- (6) "Control area" means a geographic area listed in OAR 340-22-470 in which only gasoline that meets the requirements of OAR 340-22-460 through OAR 340-22-640 may be sold or dispensed.
- (7) "Control area oxygenate blending facility" means any facility or truck at which oxygenate is added to gasoline that is intended for use in any control area, and at which the quality and quantity of gasoline is not otherwise altered, except through the addition of deposit-control additives.
- (8) "Control area responsible party (CAR)" means a person who owns gasoline and/or oxygenates that is sold or dispensed from a control area terminal.
- (9) "Control area terminal" means a terminal storage facility that is capable of receiving gasoline in bulk by pipeline or marine vessel, or at which gasoline is altered either in quantity or quality, excluding the addition of deposit control additives. Gasoline that is intended for use in any control area is sold or dispensed into trucks at these control area terminals.
- (10) "Control period" means the period during which oxygenated gasoline must be sold or dispensed within the control area.
- (11) "Department" means the Department of Environmental Quality.
- (12) "Distributor" means a person who transports or stores or causes the transportation or storage of gasoline at any point between a gasoline refinery or importer's facility and any retail outlet or wholesale purchaser-consumer's facility.
- (13) "EPA" means the United States Environmental Protection Agency.
- (14) "EPA substantially similar ruling" means a fuel or fuel additive for general use in light-duty vehicles manufactured after the model year 1974, that is substantially similar to a fuel or fuel additive used to certify a model year 1975 or newer vehicle or engine under 42 U.S.C. 7525 (Clean Air Act, section 206), as amended through November 15, 1990 and any amendments or modifications thereto, and as specified in EPA's Interpretative Ruling at 56 Federal Register 5352--5356, revised through February 11, 1991, and that the EPA has ruled meets the following criteria:
 - (a) The fuel contains carbon, hydrogen, and any or all of the elements of oxygen, nitrogen, or sulfur exclusively, with the exception of trace levels of impurities which produce gaseous combustion products, in the form of some combination of

- (A) hydrocarbons;
- (B) aliphatic ethers;
- (C) aliphatic alcohols other than methanol;
- (D) up to 0.3 percent methanol by volume;
- (E) up to 2.75 percent methanol by volume with an equal amount of butanol, or high molecular weight alcohol; or
- (F) a fuel additive at a concentration of no more than 0.25 percent by weight which contributes no more than 15 ppm sulfur by weight to the fuel.
- (b) The fuel contains no more than 2.0 percent oxygen by weight, except that fuels containing aliphatic ethers and/or alcohols (except methanol) must contain no more than 2.7 percent oxygen by weight.
- (c) The fuel possesses, at the time of manufacture, the physical and chemical characteristics of an unleaded gasoline as specified by ASTM Standard D4814-88 for at least one of the Seasonal and Geographical Volatility Classes specified in the standard; and
- (d) the fuel contains only
 - (A) carbon;
 - (B) hydrogen; and
 - (C) any or all of the following elements: oxygen, nitrogen and sulfur.
- (15) "EPA waiver" means any current motor fuel waivers granted by the U. S. Environmental Protection Agency under authority of 42 U.S.C. 745(f)(4)(Clean Air Act, section 211), as amended through November 15, 1990 and any amendments or modifications thereto.
- (16) "Gasoline" means any fuel sold for use in motor vehicles and motor vehicle engines and commonly or commercially known or sold as gasoline.
- (17) "Nonoxygenated gasoline" means any gasoline which does not meet the definition of oxygenated gasoline.
- (18) "Oxygen content of gasoline blends" means the percentage of oxygen by weight contained in a gasoline blend, based upon its percentage oxygenate by volume, excluding denaturants and other non-oxygen-containing components. All measurements must be adjusted to 60 degrees Fahrenheit.
- (19) "Oxygenate" means any substance which, when added to gasoline, increases the amount of oxygen in that gasoline blend. Lawful use of any combination of these substances requires that they be "Substantially Similar" under section 211(f)(1) of the Clean Air Act (CAA), or be permitted under a waiver granted by the Administrator of the Environmental Protection Agency under the authority of section 211(f)(4) of the CAA.

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- (20) "Oxygenate blender" means a person who owns, leases, operates, controls, or supervises a control area oxygenate blending facility.
- (21) "Oxygenated gasoline" means any gasoline which when supplied on a per gallon basis contains at least 2.7 percent oxygen by weight or which when supplied using the averaging method contains at least 2.0 percent oxygen by weight, and has been included in the oxygenated gasoline program accounting by a control area responsible party and which is intended to be sold or dispensed for use in any control area during a control period.
- (22) "Refiner" means a person who owns, leases, operates, controls, or supervises a refinery that produces gasoline for use in a control area.
- (23) "Refinery" means a plant at which gasoline is produced.
- (24) "Reseller" means a person who purchases gasoline and resells or transfers it to a retailer or wholesale purchaserconsumer.
- (25) "Retail outlet" means any establishment at which gasoline is sold or offered for sale to the ultimate consumer for use in motor vehicles.
- (26) "Retailer" means any person who owns, leases, operates, controls, or supervises a retail outlet.
- (27) "Substantially similar" means EPA substantially similar ruling.
- (28) "Terminal" means a facility capable of receiving gasoline by pipeline or marine vessel at which gasoline is sold, or dispensed into trucks for transportation to retail outlets or wholesale purchaser-consumer facilities.
- (29) "Wholesale purchaser-consumer" means any organization that is an ultimate consumer of gasoline and which purchases or obtains gasoline from a supplier for use in motor vehicles and receives delivery of that product into a storage tank of at least 550 gallon capacity substantially under the control of that organization.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Purpose and General Requirements 34-22-460

(1) Pursuant to ORS 468A.420, OAR 340-22-450 through OAR 340-22-640 apply to a person who refines, distributes, blends, supplies, sells, offers for sale, or otherwise markets gasoline motor fuel.

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- (2) Except as provided in OAR 340-22-640, the requirements of OAR 340-22-460 through OAR 340-22-640 apply only from November 1 to February 29, and only within a control area listed in OAR 340-22-470.
- (3) The labeling requirements of OAR 340-22-640 apply only within a control area during the control period.

NOTE: This applies only to the Department rules and a dispenser is still responsible for complying with the disclosure requirements of ORS 646.915.

- (4) To reduce carbon monoxide air pollution from motor vehicles in a control area, OAR 340-22-460 through OAR 340-22-640 requires
 - (a) the use in gasoline powered motor vehicles of an oxygenated gasoline with an oxygen content that meets the requirements of OAR 340-22-480 and OAR 340-22-510;
 - (b) that a dispenser where an oxygenated gasoline is dispensed be labeled as required by OAR 340-22-640;
 - (c) that oxygenated gasoline be blended as required by OAR 340-22-520; and
 - (d) a person who refines, distributes, blends, supplies, or sells an oxygenated gasoline to meet the recordkeeping and reporting requirements of OAR 340-22-460 through OAR 340-22-640.
- (5) Nothing in OAR 340-22-460 through OAR 340-22-640 precludes a person from using, refining, distributing, blending, supplying, selling, or otherwise marketing fuel that meets the requirements of OAR 340-22-460 through OAR 340-22-640
 - (a) between March 1 and October 31 in a control area; or(b) at any time in any other location statewide.
- (6) Nothing in OAR 340-22-460 through OAR 340-22-640 precludes a person from using, refining, distributing, blending, supplying, selling, or otherwise marketing nonoxygenated fuel between November 1 and February 29 outside of control areas.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Control Areas

340-22-470 The following are considered control areas: (a) Clackamas, Multnomah, Washington and Yamhill counties;

(b) Jackson county;

- (c) As used in this subsection, the Grants Pass control area means the area of the state beginning at the northeast corner of section 35, T35S, R5W; thence south to the southeast corner of section 11, T37S, R5W; thence west to the southwest corner of section 9, T37S, R6W; thence north to the northwest corner of section 33, T35S, R6W; thence east to the point of beginning.
- (d) As used in this subsection, the Klamath Falls control area means the area of the state beginning at the northeast corner of section 8, T38S, R10E; thence south to the southeast corner of section 5, T40S, R10E; thence west to the southwest corner of section 3, T40S, R8E; thence north to the northwest corner of section 10, T38S, R8E; thence east to the point of beginning.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Average Oxygen Content Standard 340-22-480

- (1) All gasoline sold or dispensed for use during the control period described in OAR 340-22-460(2), for use in each control area described in OAR 340-22-470, by each CAR or blender CAR, must be blended for each averaging period to contain an average oxygen content of not less than 2.7 percent by weight. Oxygen content calculations must be performed as required in OAR 340-22-490.
- (2) The averaging period for all gasoline sold or dispensed in a control area is the four-month control period established in OAR 340-22-460(b).

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Sampling, Testing and Oxygen Content 340-22-490

- (1) To determine compliance with the requirements of OAR 340-22-460 through OAR 340-22-640, the oxygen content of gasoline must be determined by
 - (a) sampling, using the sampling methods specified in 40 C.F.R. 80, Appendix D, as amended through July 1, 1991, the provisions of which are incorporated by reference in this rule, to obtain representative sample of the gasoline to be tested;

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- (b) testing, using the test method specified in ASTM 4815-89 or other test methods determined by the Department and EPA as being equivalent, to determine the mass concentration of each oxygenate in the gasoline sampled; and
- (c) oxygen content calculations that are made as follows: calculate the oxygen content of the gasoline sampled by multiplying the volume concentration of each oxygenate in the gasoline sampled by the oxygen molecular weight contribution of the oxygenate set forth in section (2) of this rule, with volume measurements adjusted to 60 degrees Fahrenheit.
- (2) The oxygen molecular weight contributions of an oxygenate approved for use under OAR 340-22-460 through OAR 340-22-640 are set out in Table A of this rule.

TABLE A COMPARISON OF SPECIFIC GRAVITIES AND OXYGEN MASS FRACTIONS OF PURE OXYGENATES

Sp	ecific Gravity	Oxygen
	60/60 F	Mass Fraction
Methyl Alcohol	0.7963	0.4993
Ethyl Alcohol	0.7939	0.3473
n-Propyl Alcohol	0.8080	0.2662
Isopropyl Alcohol	0.7899	0.2662
n-Butyl Alcohol	0.8137	0.2158
iso-Butyl Alcohol	0.8058	0.2158
sec-Butyl Alcohol	0.8114	0.2158
tertiary-Butyl Alcohol	0.7922	0.2158
Methyl tertiary-Butyl		
Ether	0.7460	0.1815
Ethyl tertiary-Butyl		•
Ether	0.7452	0.1566
tertiary Amyl Methyl		
Ether	0.7752	0.1566

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Alternative Compliance Options 340-22-500

(1) Each CAR or blender CAR must comply with the standard set out in OAR 340-22-480 by means of the method established in section (2) or (3) of this rule.

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- (2) Compliance calculation on average basis:
 - (a) To determine compliance with the standard in OAR 340-22-480, the CAR or blender CAR shall, for each averaging period and for each control area:
 - (A) calculate the total volume of gasoline sold or dispensed for use in the control area which is the sum of:
 - (i) the volume of each separate batch or truck load of oxygenated gasoline that is sold or dispensed;
 - (ii) minus the volume of each separate batch or truck load of oxygenated gasoline that is sold or dispensed in a different control area;
 - (iii) minus the volume of each separate batch or truck load of oxygenated gasoline that is sold or dispensed in any noncontrol area;
 - ((B) calculate the required total oxygen credit units. Multiply the total volume in gallons of oxygenated gasoline sold or dispensed into the control area so determined by Section (2)(a)(A) above) by 2.7 percent;
 - the actual (C) calculate total oxygen units generated. The actual total oxygen credit units generated is the sum of the volume of each batch or truck load of oxygenated gasoline that was sold or dispensed in the control area (as determined by Section (2)(a)(A) above) multiplied by the actual oxygen content by weight associated with each batch or truck load.
 - (D) calculate the adjusted actual total oxygen credit units. The adjusted actual total oxygen content credit units is the sum of the actual total oxygen credit units generated (as determined in Section (2)(a)(C) above;
 - (i) plus the total oxygen credit units purchased or acquired through trade; and
 - (ii) minus the total oxygen credit units sold or given away through trade.
 - (E) compare the adjusted actual total oxygen credit units with the required total oxygen credit units. If the adjusted actual total content oxygen credit units is greater than or equal to the required total oxygen credit units, then the standard in OAR 340-22-480 is met. If the adjusted actual total oxygen credit units is

less than the required total oxygen credit units the purchase of oxygen credit units is required in order to achieve compliance.

- transferring oxygen in (F) credit units, the transferor shall provide the transferee with the volume and oxygen content by weight of the gasoline associated with the credits.
- To determine the oxygen credit units associated with (b) each batch or truck load of oxygenated gasoline sold or dispensed into the control area, use the running weighted oxygen content (RWOC) of the tank from which the batch or truck load was received at the time the batch or truck load was received. In the case of batches or truck loads of gasoline to which oxygenate is added outside of the terminal storage tank from which it was received, use the weighted average of the RWOC and the oxygen content added as a result of the volume of the additional oxygenate added.
 - Running weighted oxygen content (RWOC). The RWOC accounts for the volume and oxygen content of all gasoline which enters or leaves the terminal storage tank, and all oxygenates which are added to the tank. The RWOC must be calculated each time gasoline enters or leaves the tank or whenever oxygenates are added to The RWOC is calculated weighing the tank. the following:
 - (A) the volume and oxygen content of the gasoline in storage tank at the beginning of the the averaging period;
 - the volume and oxygen content by weight of (B) gasoline entering the storage tank;
 - the volume and oxygen content by weight of (C) gasoline leaving the storage tank; and
 - the volume, type and oxygen content by weight of (D) the oxygenate added to the storage tank.
 - Credit transfers. Credit transfer may be used in the compliance calculations in OAR 340-22-500(2)(a), provided that:
 - (A) the credits are generated in the same control area in which they are used; no credits may be transferred between control areas;
 - (B) the credits are generated in the same averaging period as they are used;
 - (C) the ownership of credits is transferred only between properly registered CARs or blender CARs;

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(C)

(d)

- (D) the credit transfer agreement is made no later than 30 days after the final day of the averaging period in which the credits are generated; and
- (E) the credits are properly created.
- (e) Improperly created credits:
 - (A) No party may transfer any credits to the extent that such a transfer would result in the transferor having a negative credit balance at the conclusion of the averaging period for which the credits were transferred. Any credits transferred in violation of this subsection are improperly created credits.
 - (B) In the case of credits which were improperly created, the following paragraphs apply:
 - (i) improperly created credits may not be used, regardless of a credit transferee's good faith belief that it was receiving valid credits;
 - (ii) the transfer of credits in violation of paragraph (A) of this subsection constitutes a violation of the requirements of OAR 340-22-480; and
 - (iii) where any credits are transferred in violation of paragraph (A) of this subsection, the transferor's properlycreated credits will be applied first to any credit transfers before the transferor may apply any credits to achieve its own compliance.
 - (iv) Where any credits are transferred in violation of paragraph (A) of this subsection, the transferor shall be held legally and financially liable for any penalties or damages incurred by the transferee as a result of the invalid transaction.
- (3) Compliance calculation on a per-gallon basis:
 - (a) Each gallon of gasoline sold or dispensed by a CAR or blender CAR for use within each control area during the averaging period defined in OAR 340-22-480 shall have an oxygen content of at least 2.7 percent by weight.
 - (b) In addition, the CAR or blender CAR is prohibited from selling or purchasing oxygen credits based on gasoline for which compliance is calculated under this alternative per-gallon method.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Minimum Oxygen Content

340-22-510

- (1) Any gasoline sold or dispensed by a CAR or a blender CAR for use within a control area during the control period, must contain not less than 2.0 percent oxygen by weight, unless it is sold or dispensed to another registered CAR or blender CAR. This requirement begins at least five working days before the control period and applies until the end of that period.
- (2) The requirements of this rule apply to all persons downstream of the CAR. Any gasoline offered for sale, sold or dispensed to an ultimate consumer within a control area must contain not less than 2.0 percent oxygen by weight. This requirement applies during the entire control period.
- (3) A refiner or importer shall determine the oxygen content of each gallon of gasoline produced by use of an applicable method described in OAR 340-22-500. This determination must include the percent oxygenate by weight, the type of oxygenate and percent by volume.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Oxygenated Gasoline Blending

340-22-520

- (1) In addition to the other applicable requirements of OAR 340-22-460 through OAR 340-22-640, no person may refine, distribute, blend, supply, sell, offer for sale or otherwise market any unleaded oxygenated gasoline for use in a motor vehicle unless that product
 - (a) has received a waiver from the U.S. Environmental Protection Agency (EPA) under 42 U.S.C. 7545(f)(4), as amended through November 15, 1990 and any amendments or modifications thereto; or
 - (b) meets EPA's "substantially similar" ruling for a fuel or fuel additive used to certify a model year 1975 or newer vehicle or engine under 42 U.S.C. 7525 (Clean Air Act), as amended through November 15, 1990 and any amendments or modifications thereto.
- (2) Only an oxygenate that is found to be acceptable under EPA's "substantially similar" ruling may be used in gasoline containing lead to meet the oxygenate requirements of OAR 340-22-460 through OAR 340-22-640.

(3) The requirements of this rule do not affect the blending into leaded gasoline of a compound that does not require an EPA waiver or an EPA "substantially similar" ruling.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Registration

340-22-530

- (1) At least 30 days before the control period in which a person meets the definition of CAR or blender CAR, that person shall petition for registration as a CAR or blender CAR. A person may petition for registration as a CAR or blender CAR after the beginning of the control period but should also do so at least 30 days before conducting activities as a CAR or blender CAR. A petition for registration must be on forms approved by, and available from the Department, and must include
 - (a) the name and business address of the control area responsible party;
 - (b) the address and physical location of each of the control area terminals from which the control area responsible party operates;
 - (c) the address and physical location of each control area oxygenate blender facility which is owned, leased, operated, controlled or supervised by a blender CAR; and
 - (d) the address and physical location where documents required to be retained by this rule will be kept by the control area responsible party.
- (2) Within 30 days after any occasion when the registration information previously supplied by a control area responsible party becomes incomplete or inaccurate, the CAR or blender CAR shall submit updated registration information to the Department.
- (3) The Department will issue each CAR or blender CAR a unique identification number within 30 days after submission of a registration application to the Department. No person may participate in the averaging program under OAR 340-22-480 as a CAR or blender CAR until the Department has issued notice that registration as a CAR or blender CAR has occurred, and a unique CAR identification number. Registration is valid for the time period specified by the Department.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

CAR, Distributor and Retail Outlet Operating Permits

340-22-540 Each CAR, distributor and retail outlet supplying gasoline to a control area during a control period shall apply for and receive a permit as specified by OAR 340-20-136.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Recordkeeping

340-22-550

- (1) All persons in the gasoline distribution network shall maintain records containing the applicable compliance information described in this rule. The records must be kept by the regulated persons for at least two years.
- (2) Refiners and importers shall, for each separate quantity of gasoline produced or imported for use in a control area during the control period, maintain records containing
 - (a) results of any tests needed to determine the types of oxygenates and percentage by volume;
 - (A) oxygenate type
 - (B) oxygenate content by volume;
 - (C) oxygen content by weight;
 - (D) total volume; and
 - (E) name and address of the party to whom each separate quantity of gasoline was sold or transferred.
- (3) A person who owns, leases, operates or controls a gasoline terminal that serves a control area shall maintain records containing
 - (a) the name and address of the owner of each batch of gasoline handled during the control period;
 - (b) the volume of each batch or truck load of gasoline going into or out of the terminal;
 - (c) the RWOC of all batches or truck loads of gasoline leaving the terminal;
 - (d) the type of oxygenate, purity and percentage by volume if available;
 - (e) the oxygen content by weight of all batches or truck loads received at the terminal;
 - (f) information of each tank truck sale or batch of gasoline, as to whether it was designated for use within a control area or not;
 - (g) the name and address of the person to whom the gasoline was sold or transferred and the date of the sale or transfer; and
 - (h) results of the tests for oxygenates, if performed, of each sale or transfer and who performed the tests.

- (4) CARs and blender CARs must maintain records containing the information listed in section (3) of this rule, plus the following information:
 - (a) CAR or blender CAR identification number:
 - (b) records supporting and demonstrating compliance with the averaging standard listed in OAR 340-22-480;
 - for any credits bought, (A) sold, traded or transferred, the date of each transaction, the name, address and CAR or blender CAR number of the CAR or blender CAR involved in each transaction, and the amount of credit units (oxygen content and volume of qasoline) transferred; credit units transferred must be accompanied by a demonstration of how those credits were calculated, including adequate documentation that both parties have agreed to all credit transactions;
 - (B) the name and address of the auditor, and the results of the attest engagement conducted under OAR 340-22-630;
 - (C) the name and address of the person from whom each shipment of gasoline was received, and the date when it was received;
 - (D) data on each shipment of gasoline received, including
 - (i) the volume of each shipment;
 - (ii) the type of oxygenate, purity and percentage by volume; and
 - (iii) oxygen content by weight;
 - (E) the volume of each receipt of bulk oxygenates;
 - (F) the name and address of the persons from whom bulk oxygenates was received;
 - (G) the date and destination of each sale of gasoline, whether it was intended for use within a control area or not;
 - (H) data on each shipment of gasoline sold or dispensed including
 - (i) the volume of each shipment;
 - (ii) the type of oxygenate, purity and percentage by volume; and
 - (iii) oxygen content by weight;
 - documentation of the results of all required tests done regarding the oxygen content of the gasoline; and

- (J) the names, addresses and CAR or blender CAR identification numbers of the persons to whom any gasoline was sold or dispensed, and the dates of each transaction.
- (5) Retailers and wholesale purchaser-consumers within a control area shall maintain the following records:
 - (a) the names, addresses and CAR or blender CAR identification number of each person from whom a shipment of gasoline was purchased or received, and the date when each shipment was received; and
 - (b) data on each shipment bought, sold or transported including
 - (A) the volume of each shipment;
 - (B) the type of oxygenate, purity and percentage by volume;
 - (C) oxygen content by weight; and

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Reporting

340-22-560

- (1) Each CAR or blender CAR shall submit a report for each control period defined in OAR 340-22-480, reflecting the compliance information detailed in OAR 340-22-500. Reports are due to the Department on the 30th day of the month following the close of the control period for which the information is required. Reports must be filed on forms provided by the Department.
- Each time that physical custody or title of gasoline destined (2)for a control area is transferred, except when gasoline is sold or dispensed for use in motor vehicles at a retail outlet wholesale purchaser-consumer facility, the or transferor shall provide to the transferee, in addition to, or as part of, normal bills of lading or invoices, a transfer document containing information on the shipment. The transfer document must accompany every shipment of gasoline to a control area after it has been dispensed by a terminal, or the information must be included in the normal paperwork that accompanies each shipment of gasoline. The information legibly and conspicuously contain the following must information:
 - (a) the date of the transfer;
 - (b) the name, address and CAR or blender CAR identification number, if applicable of the transferor;
 - (c) the name, address and CAR or blender CAR identification number, if applicable, of the transferee;

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- (d) the volume of gasoline being transferred;
- (e) the proper identification of the gasoline as nonoxygenated or oxygenated;
- (f) the location of the gasoline at the time of the transfer;
- (g) the type of oxygenate and purity;
- (h) the percentage by volume, to the nearest 0.1 percent, of oxygenate in the fuel; and
- (i) for gasoline in the gasoline distribution network between the refinery or import facility and the covered area terminal, the oxygen content by weight and the oxygenate volume of the gasoline.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Prohibited Activities 340-22-570

- (1) During the control period, no refiner, importer, oxygenate blender, carrier, distributor or reseller may manufacturer, sell, offer for sale, dispense, supply, offer for supply, store, transport or cause the transportation of
 - (a) gasoline that contains less than 2.0 percent oxygen by weight, for use during the control period, in a control area; or
 - (b) gasoline represented as oxygenated which has an oxygen content that is improperly stated in the documents that accompany the gasoline.
- (2) No retailer or wholesale purchaser-consumer may dispense, offer for sale, sell, or store, for use during the control period, gasoline that contains less than 2.0 percent oxygen by weight in a control area.
- (3) No person may operate as, or claim to be a CAR or blender CAR unless that person is registered by the Department under OAR 340-22-530. No CAR or blender CAR may offer for sale, store, sell or dispense gasoline to any person who is not registered as a CAR for use in a control area, unless
 - (a) the average oxygen content of the gasoline during the averaging period meets the standard set in OAR 340-22-480; and
 - (b) the gasoline contains at least 2.0 percent oxygen by weight on a per-gallon basis.
- (4) For a terminal that sells or dispenses gasoline intended for use in a control area during the control period, the terminal owner or operator may not accept gasoline into the terminal unless

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- (a) transfer documentation accompanies it containing information required by OAR 340-22-560(2); and
- (b) the terminal owner or operator conducts a quality assurance program to verify the accuracy of the information referred to in subsection (a) of this section.
- (5) No person may sell, store or dispense nonoxygenated gasoline in any control area during the control period unless
 - (a) the nonoxygenated gasoline is segregated from oxygenated gasoline;
 - (b) clearly marked documents accompany the nonoxygenated gasoline marking it as "nonoxygenated gasoline, not for sale to an ultimate consumer in a control area;" and
 (c) the nonoxygenated gasoline is in fact not sold or
 - (c) the nonoxygenated gasoline is in fact not sold or dispensed to ultimate consumers during the control period, in the control area.
- (6) No person subject to the requirements of OAR 340-22-460 through OAR 340-22-640 may fail to comply with the requirements of OAR 340-22-460 through OAR 340-22-640.
- (7) No person may sell, store, dispense, or transfer oxygenated gasoline, except for use by the ultimate consumer at a retailoutlet or wholesale purchaser-consumer facility, without transfer documents that accurately contain the information required by OAR 340-22-560(2).

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Inspection and Sampling

340-22-580 With consent of the owner or operator, the Department will, at any reasonable time, enter the premises of any person subject to the requirements of OAR 340-22-460 through OAR 340-22-640 to determine compliance. The Department will inspect all relevant records and equipment, and will, in its discretion, purchase gasoline samples for testing by the Department.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Liability For Violation Of A Prohibited Activity 340-22-590

- (1) Subject to OAR 340-22-600, if gasoline contained in a storage tank at a facility owned, leased, operated, controlled or supervised by a retailer, wholesale purchaser-consumer, distributor, reseller, carrier, refiner, importer or oxygenate blender is found to be in violation of OAR 340-22-570(1)(a) or (2), the following persons will be considered in violation:
 - (a) the retailer, wholesale purchaser-consumer, distributor, reseller, carrier, refiner, importer or oxygenate blender who owns, leases, operates, controls or supervises the facility where the violation is found; and
 - (b) each oxygenate blender, distributor, reseller and carrier who, downstream of the control area terminal, sold, offered for sale, dispensed, supplied, offered for supply, stored, transported or caused the transportation of gasoline that is in the storage tank containing gasoline found to be in violation.
- (2) Subject to OAR 340-22-600, if gasoline contained in a storage tank at a facility owned, leased, operated, controlled or supervised by a retailer, wholesale purchaser-consumer, distributor, reseller, carrier, refiner, importer or oxygenate blender is found to be in violation of OAR 340-22-570(1)(b) or (2), the following persons will be considered in violation:
 - (a) the retailer, wholesale purchaser-consumer, distributor, reseller, carrier, refiner, importer or oxygenate blender who owns, leases, operates, controls or supervises the facility where the violation is found; and
 - (b) each refiner, importer, oxygenate blender, distributor, reseller and carrier who manufactured, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, transported or caused the transportation of gasoline that is in the storage tank containing gasoline found to be in violation.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Defenses For Prohibited Activities 340-22-600

(1) A refiner, importer, oxygenate blender, distributor, reseller or carrier is considered to be in violation of OAR 340-22-570(1) unless that person demonstrates that

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- (a) the violation was not caused by the regulated person or that person's employee or agent;
- (b) the person possesses documents that should accompany the gasoline, and that contain the information required by OAR 340-22-560;
- (c) the person conducts a quality assurance sampling and testing program as described in OAR 340-22-620; and
- A refiner, importer, oxygenate blender, distributor, reseller or carrier is considered to be in violation of OAR 340-22-570(5) unless that person demonstrates that
 - (a) the product is clearly labeled as "blendstock/export/storage" and the evidence supports this classifications;
 - (b) the accompanying documents clearly state that the product does not comply with the oxygenated gasoline requirements;
 - (c) some aspect of the product's quality supports the party's claim that the product was intended to be further blended before being sold, supplied, etc. as a finished product;
 - (d) the seller, supplier or transporter of the product has obtained a written certification or notice on shipping documents from the buyer/recipient of the product that the buyer/recipient understands that the product is not intended for sale or distribution as finished gasoline in a control area or until
 - (A) it is blended to meet the oxygenated gasoline requirements of OAR 340-22-460 through OAR 340-22-640 or
 - (B) the buyer/recipient receives equivalent certification from a subsequent buyer or obtains a written certification that the gasoline will not be sold or dispensed for use within a control area; and
 - (e) the party has no knowledge or reason to believe that the product will not be further blended to comply with the standards of OAR 340-22-480 before being sold, supplied or transported as finished product, or that it would be sold or dispensed without further blending within a control area.
- (3) A retailer or wholesale purchaser-consumer is considered to be in violation of OAR 340-22-570(2) unless that person demonstrates that
 - (a) the violation was not caused by the regulated person or that person's employee or agent;

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(2)

- (b) the person possesses documents that should accompany the gasoline, and that contain the information required by OAR 340-22-560.
- (4) For purposes of this rule, the term "was caused" means that the person must demonstrate by a preponderance of the evidence through reasonably specific showings, by direct or circumstantial evidence, that the violation was caused or must have been caused by another person.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Inability to Produce Conforming Gasoline Due to Extraordinary Circumstances

340-22-610

- (1) The Department will allow a person to distribute fuel which does not meet the oxygenated gasoline requirements of OAR 340-22-460 through OAR 340-22-640 in appropriate extreme and unusual circumstances which are clearly outside the control of the blender CAR and which could not have been avoided by the exercise of prudence, diligence and due care if:
 - (a) it is in the public interest to do so because distribution of the nonconforming fuel is necessary to meet projected shortfalls which cannot otherwise be compensated for;
 - (b) the blender CAR exercised prudent planning and was not able to avoid the violation and has taken all reasonable steps to minimize the extent of the nonconformity;
 - (c) the blender CAR can show how the requirements for oxygenated gasoline will be expeditiously achieved; and
 - (d) the blender CAR agrees to make up the air quality detriment associated with the nonconforming gasoline, where practicable.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Quality Assurance Program

340-22-620 To demonstrate an acceptable quality assurance program under this rule, a person shall conduct periodic sampling and testing to determine if the oxygenated gasoline has oxygen content that is consistent with the product transfer documentation.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

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Attest Engagements Guidelines When Prohibited Activities Alleged 340-22-630

- (1)The Department will not require a CAR or blender CAR to submit attest engagement reports except as an optional defense for any alleged violations of OAR 340-22-460 through OAR 340-22-640.
- The attest engagement shall consist of performing the agreed-(2) upon procedures set forth in the guidelines in accordance the Association of Independent Certified Public with Accountants' (AICPA's) statements standards for on Attestation Engagements and using statistical sample design parameters provided by EPA.
- In performing the attest engagement, the CPA shall determine (3) the sample size for each population according to parameters set out in Table A of this rule.

TABLE A

Number in Population (N)

Sample Size

59 1 1

66	or lar	ger
41	- 65	
26	- 40	
0	- 25	

	4 L	
	31	
24,	whichever	is

N or

smaller

- The number of populations from which samples should be drawn (4) will vary depending on the circumstances. Sample items should be selected in such a way that the sample can be expected to be representative of the population.
- (5)If the CPA agrees to use some other form of sample selection and some other method to determine the sample size, that agreement should be summarized in the CPA's report.
- The attest engagement shall be conducted by an independent (6) Certified Public Accountant (CPA).
- The CPA is required to comply with the general code of conduct and ethics as prescribed by the State of Oregon and (7) by the AICPA.
- (8) The attest engagement shall include the following agreed-upon procedures, as appropriate, for the CAR's standardized reporting form(s):
 - Read the report completed by management and filed with (a) the Department.
 - (b) Obtain from the CAR an inventory reconciliation summarizing receipts and deliveries of all gasoline, gasoline blendstocks, and oxygenates for CARs serving a control area.
 - Test mathematical (A) accuracy of inventory reconciliation.

- (B) Agree beginning and ending inventory amounts to company's perpetual inventory records.
- (C) Agree deliveries into the control area to Department report, if applicable.
- (c) Obtain listing of all gasoline, gasoline blendstocks, and oxygenate receipts during the period.
 - (A) Test mathematical accuracy of listing.
 - (B) Agree amounts to inventory reconciliation.
 - (C) Select a representative sample of individual receipts of gasoline, gasoline blendstocks, and oxygenates and trace details back to source documents.
- (d) Obtain listing of all gasoline, gasoline blendstocks, and oxygenates sold or dispensed during the period.
 - (A) Test mathematical accuracy of listing.
 - (B) Agree amounts to inventory reconciliation report.
 - (C) Select a representative sample of individual batches sold or dispensed both into and outside the control area.
 - (i) Agree volumes for the sample items to original bill of lading or other source documents.
 - (ii) For sales or deliveries into the control area, determine that oxygenate content is at least two percent by examining bills of lading.
- (e) Using the volume of oxygenated gasoline sold or dispensed into the control area from the inventory reconciliation report, recalculate the number of oxygen content units required by multiplying by 2.7% and agree to Department report.
- (f) Recalculate the actual total oxygen credit units generated by adding the oxygen content of each batch or truck load of oxygenated gasoline that was sold or dispensed in the control area as determined in subsection (e) above multiplied by the actual oxygen content by weight associated with each batch or truck load.
- (g) Recalculate the adjusted actual total oxygen credit units as follows:
 - (A) The actual total oxygen credit units generated from subsection (f);
 - (B) plus the total oxygen credit units purchased or acquired through trade; and
 - (C) minus the total oxygen credit units sold or given away through trade.

- The following steps apply to the testing of the actual (h) total oxygen content from subsection (f) and are applicable based on method of blending:
 - For CARs using rack- and splash-blending, (A) recompute oxygen content by weight for a representative sample of deliveries based on detailed meter readings of gasoline, blendstocks and oxygenate receipts.
 - For CARs using in-tank blending of gasoline, (B) blendstocks and oxygenates, obtain register of running weighted oxygen content by tank and:
 - Using the individual sample items from (i) subsections (c) and (d) above, test calculation of running totals.
 - Where laboratory analysis is used with (ii)the CARs weighted average calculation, select individual analysis reports of oxygenated gasoline receipts and deliveries during the period on а representative sample basis.
 - (I) Review laboratory results for consistency with CAR's calculations noting oxygen volume and specific gravity.
 - Recalculate oxygen by weight. (II)
 - Agree information on lab reports (III) to underlying delivery and receiving documentation.
 - Obtain register of oxygen credit unit purchases and sales and select separate representative samples of individual purchased credits and individual sales credits.
 - (A) Agree selected credit unit transactions to the underlying contract and/or other supporting documentation noting specific volumes and oxygen content of the gasoline associated with the credits.
 - (B) Agree to the underlying contract and/or supporting documentation that the credits are generated in the same control areas as they are used. For example, no credits may be transferred between control areas.
 - (C) Agree to the underlying contract and/or supporting documentation that the credits are generated in the same averaging period as they are used.

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(i)

- (D) Agree to the underlying contract and/or supporting documentation that the ownership of credits is transferred only between CARs.
- (E) Agree to the underlying contract and/or supporting documentation that the credit transfer agreement was made no later than 30 days after the final day of the averaging period in which the credits are generated.
- (j) Prepare a report to client in accordance with the report provisions of Statements on Standards for Attestation Engagements indicating results of performing the above procedures.
- (9) The attestation report must be in compliance with the AICPA's Statement on Standards for Attestation Engagements.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

Dispenser Labeling 340-22-640

- (1) A person who sells or markets oxygenated gasoline at retail, or who otherwise provides oxygenated gasoline for consumption by an ultimate consumer, shall place two labels on a dispenser used to dispense the gasoline to identify the oxygenate in the fuel, using the following criteria:
 - (a) The first label must include the following statement: "The gasoline dispensed from this pump is oxygenated and will reduce carbon monoxide pollution from motor vehicles."
 - (b) The second label must contain the type of oxygenate(s) and the exact (plus or minus 0.5%) or maximum use concentration by volume. Only those oxygenates and concentrations listed below and any gasoline designated by EPA as substantially similar are allowed.

NOTE: This applies only to the Department rules and a dispenser is still responsible for complying with the disclosure requirements of ORS 646.915.

- (A) Blends of up to 10% by volume anhydrous ethanol (200 proof) (commonly referred to as the "gasohol" waiver).
- (B) Blends of methanol and gasoline grade tertiary butyl alcohol (GTBA) such that the total oxygen content does not exceed 3.5% by weight and the ratio of methanol to GTBA is less than or equal to one. It is also specified that this blended fuel must meet ASTM volatility specifications (commonly referred to as the "ARCO" waiver).

- (C) Blends of up to 5.0% by volume methanol with a minimum of 2.5% by volume cosolvent alcohols having a carbon number of 4 or less (i.e. ethanol, propanol, butanol and/or GTBA). The total oxygen must not exceed 3.7% by weight, and blend meet ASTMvolatility the must specifications as well as phase separation and alcohol purity and inhibitor specifications (commonly referred to as the "DuPont" waiver).
- (D) Blends up to 5.0% by volume methanol with a minimum of 2.5% by volume cosolvent alcohols having a carbon number of 8 or less. The total oxygen must not exceed 3.7% by weight and the blend must meet ASTM volatility specifications as well as phase separation and alcohol purity and inhibitor specifications (commonly referred to as the "Octamix" waiver).
- (E) Blends up to 15.0% by volume methyl tertiary butyl ether (MTBE) which must meet the ASTM D4614 specifications. Blenders must take precautions that the blends are not used as base gasolines for other oxygenated blends (commonly referred to as the "Sun" waiver).
- (F) Blends of aliphatic alcohols other than methanol and aliphatic ethers, provided the oxygen content does not exceed 2.7% by weight.
- (G) Blends of methanol up to 0.3 percent by volume exclusive of other oxygenates.
- (H) Blends up to 2.75% by volume methanol with an equal volume of butanol or alcohols of a higher molecular weight.
- (c) Lettering on the label must be legible and in block style of at least 20 point bold type.
- (d) The lettering on the label shall be in a color contrasting to the intended background.
- (e) The label must be placed on each side of the dispenser from which the gasoline can be dispensed and shall be on the upper one half of the dispenser, in a position that will be clear and conspicuous to the consumer.

Stat. Auth.: ORS Ch. 468A Hist.: AQ 21, f. 10-30-92, ef. 11-1-92

DIVISION 23

RULES FOR OPEN BURNING

[ED. NOTE Administrative Order DEQ 37 repealed previous rules 340-23-005 through 340-23-021 (consisting of AP 4, filed 3-12-59; and applicable portions of SA 16, filed 2-13-62).]

Definitions 340-23-005 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 123, f. & ef. 10-20-76]

Prohibited Practices 340-23-010 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 123, f. & ef. 10-20-76]

Regulation of Authorized Open Burning 340-23-015 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 123, f. & ef. 10-21-76]

Forced-Air Pit Incineration 340-23-020 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 123, f. & ef. 10-20-76]

How to Use These Open Burning Rules 340-23-022

[These rules] This Division classif [y] ies all open burning (1)into one of seven classes: Agricultural; Commercial; Construction; Demolition (which includes land clearing); Domestic (which includes burning commonly called "backyard burning" and burning of yard debris); Industrial; or Slash. Except for field burning within the Willamette Valley which is regulated by OAR Chapter 340, Division 26 and slash burning which is controlled by the forest practices smoke management plan administered by the Oregon Department of Forestry, { these rules this Division prescribes requirements for and prohibitions of open burning for every location in the state. Generally, if a class of open burning is not specifically prohibited in a given location, then it is authorized subject to OAR 340-23-040 and 340-23-042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. In addition, some practices specifically mentioned in OAR 340-23-035 are

(2)

exempted from <a>[regulation under these rules] this Division. Organization of rules:

- (a) OAR 340-23-025 is the Policy statement of the Environmental Quality Commission setting forth the goals of <u>{-these rules} this Division</u>.
- (b) OAR 340-23-030 contains definitions of terms which have specialized meanings within the context off these rules<u>]</u> this Division.
- (c) OAR 340-23-035 lists specific types of open burning and practices which are not governed by [these rules] <u>this Division</u>.
- (d) OAR 340-23-040 lists general requirements which are usually applicable to any open burning governed by{ these rules} this Division.
- (e) OAR 340-23-042 lists general prohibitions which apply to most open burning.
- (f) OAR 340-23-043 establishes the open burning schedule based on air quality and meteorological conditions as required by ORS 468[.450]A.570.
- (g) OAR 340-23-045 indexes each county of the state to a specific rule giving specific restrictions for each class of open burning applicable in the county.
- (h) OAR 340-23-055 through 340-23-090 are rules which give specific restrictions to open burning for each class of open burning in the counties named in each rule.
- (i) OAR 340-23-100 provides for a letter permit authorization for open burning under certain circumstances in which open burning otherwise would be prohibited.
- (j) OAR 340-23-105 establishes criteria for use of forced-air pit incineration.
- (k) OAR 340-23-110 requires fire permit issuing agencies to keep records and reports.
- (1) OAR 340-23-115 contains the legal description of Open Burning Control areas and maps which generally depict these areas.
- (3) Use of <u>{ these rules} this Division</u> will be made easier by { using} the following procedure:
 - (a) Read OAR 340-23-040 and OAR 340-23-042 to understand general requirements and prohibitions which apply to all burning which is governed by <u>these rules</u> this <u>Division</u>.
 - (b) In OAR 340-23-030 read the definitions of Agricultural, Commercial, Construction, Demolition, Domestic and Industrial open burning plus the definitions of land clearing and yard debris to

determine the type of burning of concern. Also read OAR 340-23-035 to determine if the type of burning is exempted from[these rules] this Division.

- (c) Locate the rule (OAR 340-23-055 through OAR 340-23-090) which governs the county in which burning is to take place. OAR 340-23-045 is an index to the county rules.
- (d) Read the sections of the county rules which apply to the type of burning to be accomplished.
- (e) If not prohibited by[these rules] this Division, obtain a fire permit from the fire district, county court or county commissioners before conducting any burning.
- (f) If the type of burning proposed is prohibited by{ these-rules} this Division, refer to OAR 340-23-100 (Letter Permits) or OAR 340-23-105 (Forced Air Pit Incinerators) for a possible alternative.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>, 468A</u> & 477 Hist.: DEQ 27-1981, f. & ef. 9-8-81

Policy

340-23-025 In order to restore and maintain the quality of the air resources of the state in a condition as free from air pollution as is practicable, consistent with the overall public welfare of the state, it is the policy of the Environmental Quality Commission:

- (1) To eliminate open burning disposal practices where alternative disposal methods are feasible and practicable;
- To encourage the development of alternative disposal methods;
- (3) To emphasize resource recovery;
- (4) To regulate specified types of open burning;
- (5) To encourage utilization of the highest and best practicable burning methods to minimize emissions where other disposal practices are not feasible; and
- (6) To require specific programs and timetables for compliance with this division.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [477] 468A Hist.: DEQ 123, f. & ef. 10-20-76; DEQ 27-1981, f. & ef. 9-8-81

Definitions

340-23-030 As used in [these rules -unless otherwise required by context] this Division:

- "Agricultural burning for d[D] isease[and] or pest $(\{15\}1)$ control" means open burning of agricultural waste infected or infested with a disease or pest for which no other practicable control exists. Pests or diseases for which no practicable control alternative exists shall include only those pests and diseases identified by the County Extension Service or Oregon Department of Agriculture.
- "Agricultural Operation" means an activity on land $(\{1\}2)$ currently used or intended to be used primarily for the purpose of obtaining a profit in money by raising, harvesting and selling crops or by the raising and sale of livestock or poultry, or the produce thereof, which activity is necessary to serve that purpose; it does not include the construction and use of dwellings customarily provided in conjunction with the agricultural operation.
- "Agricultural open burning" means the open burning of ([2]3) any agricultural waste except as provided in OAR 340-23 - 035(5).
- "Agricultural waste" means any waste material $(\frac{13}{4})$ actually generated or used by an agricultural operation [but], excluding those materials described in OAR 340-23-042(2).
- "Auxiliary Combustion Equipment" includes, but is not limited to, fans or air curtain incinerators.
- "Combustion Promoting Materials" include, but are not ([5]6) limited to, propane, diesel oil, or jellied diesel.
- "Commercial open burning" means the open burning of ([6]]) any commercial waste.
- $(\frac{7}{8})$

"Commercial Waste" means: (a)

- Any material except:
 - Agricultural waste, (A)
 - (B) Construction waste,
 - (C) Demolition waste,
 - Domestic waste, (D)
 - (E) Industrial waste, and
- Slash. (F)
- (b) Examples of commercial waste are waste material from offices, wholesale or retail yards and outlets, warehouses, restaurants, mobile home parks, and

	dwellings containing more than four family living units such as apartments, condominiums, hotels,						
([8] 9)	motels or dormitories. "Commission" means the Environmental Quality						
([9] 10)	Commission. "Construction open burning" means the open burning of						
(1 [0] 1)	any construction waste. "Construction waste" means any <u>waste</u> material						
	actually resulting from or produced by a building or construction project. Examples of construction waste are wood, lumber, paper, crating and packing materials used during construction, materials left after completion of construction and materials collected during cleanup of a construction site.						
(1 [1] 2)	"Demolition open burning" means the open burning of demolition waste.						
(1 [2] 3)	"Demolition waste" means any material actually resulting from or produced by the complete or partial destruction or tearing down of any man-made structure or the clearing of any site for land improvement or cleanup excluding yard debris (domestic waste) and agricultural waste.						
(1 [3] 4)	"Department" means the Department of Environmental						
(1 [4]5)	Quality. "Director" means the Director of the Department or delegated employe <u>e</u> representative pursuant to ORS 468.045(3).						
	mestic open burning" means the open burning of any						
(17) "Dor inc: mate four prop actu four dome	estic waste. mestic Waste" means household <u>waste</u> material, which ludes paper, cardboard, clothing, yard debris, or other erial, actually generated in or around a dwelling of r (4) or fewer family living units, or on the real perty appurtenant to the dwelling. Such <u>waste</u> materials ually generated in or around a dwelling of more than r (4) family living units are commercial wastes. Once estic waste is removed from the property of origin it omes commercial waste.						
com qua imm	"Fire Hazard" means the presence or accumulation of combustible material of such nature and in sufficient quantity that its continued existence constitutes an imminent and substantial danger to life, property, public welfare, or to adjacent lands.						
(19) "Foi whic							
Printed by f	the Department of Environmental Quality: December 30, 1992 Page 5						

- (a) Combustion air supplied under positive draft by an air curtain; and
- (b) Combustion air controlled in such a manner as to optimize combustion efficiency and minimize the emission of air contaminants.
- (20) "Industrial open burning" means the open burning of any industrial waste.
- (21) "Industrial Waste" means any <u>waste</u> material, including process waste, produced as the direct result of any manufacturing or industrial process.
- (22) "Land Clearing" means the removal of trees, brush, logs, stumps, debris or man made structures for the purpose of site clean-up or site preparation. All<u>waste</u> material generated by land clearing is demolition waste except those materials which are included in the definitions of agricultural wastes, yard debris (domestic waste), and slash.
- (23) "Letter Permit" means an Air Contaminant Discharge Permit issued pursuant to OAR 340-23-100.
- (24) "Local jurisdiction" means:
 - (a) The local fire permit issuing authority, or
 - (b) Local governmental entity with authority to regulate by law or ordinance.
- (25) "Open Burning"[-includes burning in] means:
 - (a) <u>Burning in of0</u>pen outdoor fires;
 - (b) <u>Burning in b[B]</u>urn barrels;
 - (c) <u>Burning in i</u>[I]ncinerators which do not meet the emission limitations specified for refuse burning equipment in OAR 340-21-025; and
 - (d) Any other <u>outdoor</u> burning which occurs in such a manner that combustion air is not effectively controlled and combustion products are not effectively vented through a stack or chimney.
- (26) "Open Burning Control Area" means an area established to control specific open burning practices or to maintain specific open burning standards which may be more stringent than those established for other areas of the state. Open burning control areas in the state are described in OAR 340-23-115. The open burning control areas in the state are:
 - (a) All areas in or within three (3) miles of the corporate city limits of cities having a population of four thousand (4,000) or more, as further described in OAR 340-23-115(1) and generally shown in Figure 2 thereof.

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- (b) The Coos Bay open burning control area, as described in OAR 340-23-115(2) and generally shown in Figure 3 thereof.
- (c) The Rogue Basin open burning control area, as described in OAR 340-23-115(3) and generally shown in Figure 4 thereof.
- (d) The Umpqua Basin open burning control area, as described in OAR 340-23-115(4) and generally shown in Figure 5 thereof.
- (e) The Willamette Valley open burning control area as described in OAR 340-23-115(5) and generally shown in Figure 2 thereof.
- (27) "Person" means any individual, corporation, association, firm, partnership, joint stock company, public or municipal corporation, political subdivision, the state or any agency thereof, or the federal government or any agency thereof.
- (28) "Population" means the annual population estimate of incorporated cities within the State of Oregon issued by the Center for Population Research and Census, Portland State University, Portland, Oregon.
- (29) "Slash" means forest debris or woody vegetation to be burned under the Oregon Smoke Management Plan administered by the Oregon Department of Forestry pursuant to ORS 477.515. The burning of <u>such</u> slash<u>is</u> must be related to the management of forest land<u>ades not include the burning of any other material created by land clearing] used for growing and harvesting timber.</u>
- (30) "Ventilation index" means a number calculated by the Department relating to the ability of the atmosphere to disperse pollutants. The ventilation index is the product of the measured or estimated meteorological mixing depth in hundreds of feet and the measured or estimated average wind speed in knots through the mixed layer[-in knots].
- (31) "Waste" includes any useless or discarded materials. Each waste is categorized in[these rules] this <u>Division</u> as one and only one of the following types:
 - (a) Agricultural;
 - (b) Commercial;
 - (c) Construction;
 - (d) Demolition;
 - (e) Domestic;
 - (f) Industrial; or
 - (g) Slash.
- (32) "Yard debris" means wood, needle or leaf materials from trees, shrubs or plants from the real property appurtenant to a dwelling of not more than four (4) family living units so long as such debris remains on the property of

origin. Once yard debris is removed from the property of origin it becomes commercial waste. Yard debris is included in the definition of domestic waste.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 468A & 477
Hist.: DEQ 123, f. & ef. 10-20-76; DEQ 23-1979, f. & ef. 7-5-79;
DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef.
6-16-84; AQ 1, f. & ef. 11-13-91

Exemptions, Statewide

340-23-035 [The rules in t]This Division [23] shall not apply to:

- (1) Fires set for traditional recreational purposes and traditional ceremonial occasions for which a fire is appropriate provided that no materials which may emit dense smoke or noxious odors as prohibited in[-rule] OAR 340-23-042(2) are burned.
- (2) The operation of any barbecue equipment.
- (3) Fires set or permitted by any public agency when such fire is set or permitted in the performance of its official duty for the purpose of weed abatement, prevention or elimination of a fire hazard, or a hazard to public health or safety or instruction of employees in the methods of fire fighting, which in the opinion of the agency is necessary.
- (4) Agricultural open burning conducted east of the crest of the Cascade Mountains including all of Hood River and Klamath Counties.
- (5) Open field burning, propane flaming, and stack and pile burning in the Willamette Valley between the crests of the Cascade and Coast Ranges pursuant to OAR Chapter 340, Division 26, Rules for Field Burning.
- (6) Open burning on forest land permitted under the forest practices Smoke Management Plan filed with the Secretary of State pursuant to ORS 477.515.
- (7) Fires set pursuant to permit for the purpose of instruction of employes of private industrial concerns in methods of fire fighting, or for civil defense instruction.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>, 468A & 477</u> Hist.: DEQ 123, f. & ef. 10-20-76; DEQ 23-1979, f. & ef. 7-5-79; DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 1, f. & ef. 11-13-91; AQ 18, f. & ef. ###

General Requirements Statewide

340-23-040 This rule applies to all open burning within the purview of <u>these rules</u> this Division whether authorized, permitted or prohibited by <u>the rules in</u> this Division <u>23</u>, <u>f(</u>Junless expressly limited therein<u>f</u>), or by any other rule, regulation, permit, ordinance, order or decree of the Commission or other agency having jurisdiction:

- (1) All **[O]o**pen burning shall be constantly attended by a responsible person or an expressly authorized agent until extinguished.
- (2) Each person who is in ownership, control or custody of the real property on which open burning occurs, including any tenant thereof, or who is in ownership, control or custody of the material which is burned, shall be considered a responsible person for the open burning. Any person who causes or allows open burning to be initiated or maintained shall also be considered a responsible person.
- (3) It shall be the duty of each responsible person to promptly extinguish any burning which is in violation of any rule of the Commission or of any permit issued by the Department unless the Department has given written approval to such responsible person to use auxiliary combustion equipment or combustion promoting materials to minimize smoke production and the responsible person complies with the requirements in the written approval. However, nothing in this section shall be construed to authorize any violation of OAR 340-23-042(1) or (2).
- (4) To promote efficient burning and prevent excessive emissions of smoke, each responsible person shall, except where inappropriate to agricultural open burning:
 - (a) Assure that all combustible material is dried to the extent practicable. This action shall include covering the combustible material when practicable to protect the material from deposition of moisture in any form, including precipitation or dew. However, nothing in this section shall be construed to authorize any violation of OAR 340-23-042(1) or (2).
 - (b) Loosely stack or windrow the combustible material in such a manner as to eliminate dirt, rocks and other noncombustible material and promote an adequate air supply to the burning pile, and provide the necessary tools and equipment for the purpose.

- (c) Periodically restack or feed the burning pile and insure that combustion is essentially completed and smoldering fires are prevented and provide the necessary tools and equipment for the purpose.
- (5) Not withstanding OAR 340-23-035(4), each person sanitizing perennial or annual grass seed crops by open burning, in counties outside the Willamette Valley, shall pay the Department \$4.00 for each acre burned.
 - (a) The Department may contract with counties, rural fire protection districts, or other responsible individuals for the collection of the fees.
 - (b) All fees collected under this section shall be deposited in the State Treasury to the credit of the Department of Agricultur<u>efall</u> Service Fund.
- (6) Open burning in compliance with [the rules in] this Division [23] does not exempt any person from any civil or criminal liability for consequences or damages resulting from such burning, nor does it exempt any person from complying with any other applicable law, ordinance, regulation, rule, permit, order, or decree of this or any other governmental entity having jurisdiction.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 123, f. & ef. 10-20-76; DEQ 23-1979, f. & ef. 7-5-79; DEQ 27-1981, f. & ef. 9-8-81; AQ 18, f. & ef. 3-11-92

General Prohibitions Statewide

340-23-042 This rule applies to all open burning within the purview of <u>these rules</u> this Division whether authorized, permitted or prohibited by <u>the rules in</u> this Division <u>23</u>, <u>(</u>Junless expressly limited therein<u></u>), or by any other rule, regulation, permit, ordinance, order or decree of the Commission or other agency having jurisdiction:

- (1) No person shall cause or allow to be initiated or maintained any open burning which interferes unreasonably with enjoyment of life or property or which creates any of the following:
 - (a) A private nuisance, except as created by agricultural open burning;
 - (b) A public nuisance, except as created by agricultural open burning; or
 - (c) A hazard to public safety.

- (2) No person shall cause or allow to be initiated or maintained any open burning of any wet garbage, plastic, wire insulation, automobile part, asphalt, petroleum product, petroleum treated material, rubber product, animal remains, or animal or vegetable matter resulting from the handling, preparation, cooking, or service of food or of any other material which normally emits dense smoke or noxious odors.
- (3) No person shall cause or allow to be initiated or maintained any open burning of any material in any part of the state on any day or at any time if the Department has notified the State Fire Marshal that such open burning is prohibited because of meteorological or air quality conditions pursuant to OAR 340-23-043.
- (4) No fire permit issuing agency shall issue any fire permit which purports to authorize any open burning of any material at any location on any day or at any time if the Department has notified the State Fire Marshal that such open burning is prohibited because of meteorological or air quality conditions. However, the failure of any fire permit issuing agency to comply shall not excuse any person from complying with this section.
- (5) No person shall cause or allow to be initiated or maintained any open burning authorized by[the rules in] this Division[23] during hours other than specified by the Department.
- (6) No person shall cause or allow to be initiated or maintained any open burning at any solid waste disposal site unless authorized by a Solid Waste Permit issued pursuant to OAR 340-61-005 through 340-61-085.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 &[477] & 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84

Open Burning Schedule

340-23-043 Pursuant to ORS 468[.450]A.570, 476.380, 477.520 and 478.960 the following open burning schedule shall be administered by the Department:

- (1) Mandatory Prohibition Based on Adverse Air Quality Conditions:
 - (a) The Department shall notify the State Fire Marshal that all open burning shall be prohibited in all or a

specified part of the state for the times and locations which the Department has declared:

- (A) A particulate or sulfur dioxide alert pursuant to OAR 340-27-010(2);
- (B) A particulate or sulfur dioxide warning pursuant to OAR 340-27-010(3); or
- (C) An emergency for any air contaminant pursuant to OAR 340-27-010(4).
- (b) All open burning shall be prohibited until the Department notifies the State Fire Marshal that the episode and prohibition have been declared to have terminated.
- (2) Discretionary Prohibition or Limitation Based on Meteorological Conditions:
 - (a) The Department may notify the State Fire Marshal that all or specified types of open burning shall be prohibited or limited in all or any specified parts of the state based on any one or more of the following criteria affecting that part of the state:
 - (A) An Air Stagnation Advisory issued by the National Weather Service;
 - (B) The daily maximum ventilation index calculated by the Department for the Willamette Valley Open Burning Control Area or Umpqua Basin Open Burning Control Area is less than 200;
 - (C) The daily maximum ventilation index calculated by the Department for the Rogue Basin or Umpqua Basin open burning control area is less than:
 - (i) 200 for burning of orchard prunings during February 1992 and February 1993 on days with a green woodburning advisory;
 - (ii) 200 for agricultural burning for disease or pest control on days with a green woodburning advisory;
 - (iii) 400 for all other open burning;
 - (D) The daily maximum ventilation index calculated by the Department for any area outside the Willamette Valley, Rogue Basin and Umpqua Basin open burning control areas is less than 150;[or]
 - (E) For regulation of burning of yard debris in urban areas, consideration of the amount of precipitation, expected during the day; or
 (F) Any other relevant factor.
 - (b) All open burning so prohibited or limited shall be prohibited or limited until the Department notifies

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the State Fire Marshal that the prohibition or limitation has been terminated.

- (c) In making the determination of whether or not to prohibit or limit open burning pursuant to this section the Department shall consider:
 - (A) The policy of the state set forth in ORS 468[.280]A.010;
 - (B) The relevant criteria set forth in ORS 468[.295]A.025(2);
 - (C) The extent and types of materials available to be open burned;
 - (D) In the case of Agricultural open burning, the recommendations received from any local agricultural smoke management organization; and
 - (E) Any other relevant factor.
- (d) In making the determination of whether or not to prohibit or limit any open burning pursuant to this section the Department shall give first priority to the burning of perennial grass seed crop used for grass seed production, second priority for annual grass seed crop used for grass seed production, third priority to grain crop burning and fourth priority to all other burning.
- (3) Unless and until prohibited or limited pursuant to sections (1) or (2) of this rule, open burning shall be allowed during a day, so long as it is not prohibited by, and is conducted consistent with the other rules in this Division{ 23] and the requirements and prohibitions of local jurisdiction and the State Fire Marshal.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468, 468A & 477
Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef.
6-16-84; AQ 2, f. & ef. 11-13-91

County Listing of Specific Open Burning Rules

340-23-045 Except as otherwise provided, in addition to the general requirements and prohibitions listed in OAR 340-23-040 and 340-23-042, specific prohibitions of Agricultural, Commercial, Construction, Demolition, Domestic, and Industrial open burning are listed in separate rules for each county. The following list identifies the rule where prohibitions of specific types of open burning applicable to a given county may be found: (1) Baker County OAR rule number 340-23-055

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(2)	Benton County											340-23-060
(3)	Clackamas County	•	•	•	•	•	•	•				340-23-065
(4)	Clatsop County .	•	•	•	٠	•	•	•				340- 23-055
(5)	Columbia County .	•	٠	•	•	•	٠	٠	OAR	rule	number	340-23-080
(6)	Coos County								OAR	rule	number	340-23-090
(7)	Crook County											340-23-055
(8)	Curry County	•	•	•	•	•	•	•	OAR	rule	number	230-23-055
(9)	Deschutes County	•	•	•	•	•	٠	•	OAR	rule	number	340-23-055
(10)	Douglas County .								OAR	rule	number	340-23-090
(11)	Gilliam County .	•	•	•	•	٠	•	•	OAR	rule	number	340-23-055
(12)	Grant County	•	•	•	•	•	•	•	OAR	rule	number	340-23-055
(13)	Harney County	•	•	•	•	•	•	•	OAR	rule	number	340-23-055
(14)	Hood River County		•	•	•	•	•	•	OAR	rule	number	340-23-055
(15)	Jackson County .								OAR	rule	number	340-23-090
(16)	Jefferson County	•	•	•	•	•		•	OAR	rule	number	340-23-055
(17)	Josephine County		•		•	•	•	•	OAR	rule	number	340-23-090
(18)	Klamath County .	٠	•	•	•	•	•	•	OAR	rule	number	340-23-055
(19)	Lake County	•	•	•	•	•	•	•	OAR	rule	number	340-23-055
(20)	Lane County	•	•	•	•	•	•	•	OAR	rule	number	340-23-085
(21)	Lincoln County .		•	•	•			•	OAR	rule	number	340-23-055
(22)	Linn County	•	•	•	•	•	•	•	OAR	rule	number	340-23-060
(23)	Malheur County .	•	•	•	•	•	•	•	OAR	rule	number	340-23-055
(24)	Marion County		•		•			•	OAR	rule	number	340-23-060
(25)	Morrow County	•	•	•		•	•	•	OAR	rule	number	340-23-055
(26)	Multnomah County	•	•	•	•	•	•	•	OAR	rule	number	340-23-070
(27)	Polk County								OAR	rule	number	340-23-060
(28)	Sherman County .	•	•	•	•	•	•	•	OAR	rule	number	340-23-055
(29)	Tillamook County	•	•	•	•	•	•	•	OAR	rule	number	340-23-055
(30)	Umatilla County.	•		•		•	•	•	OAR	rule	number	340-23-055
(31)	Union County	•	•	•	•	•	•	•	OAR	rule	number	340-23-055
(32)	Wallowa County .	•	•	•	•	•	•	•	OAR	rule	number	340-23-055
(33)	Wasco County								OAR	rule	number	340-23-055
(34)	Washington County								OAR	rule	number	340-23-075
(35)	Wheeler County .								OAR	rule	number	340-23-055
(36)	Yamhill County .								OAR	rule	number	340-23-060
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[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 123, f. & ef. 10-20-76; DEQ 23-1979, f. & ef. 7-5-79; DEQ 1-1981(Temp), f. & ef. 1-9-81; DEQ 7-1981(Temp), f. & ef. 2-17-81; DEQ 8-1981(Temp), f. & ef. 3-13-81; DEQ 27-1981, f. & ef. 9-8-81

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

340-23-050 [Renumbered to 340-23-110]

Open Burning Prohibitions

Baker, Clatsop, Crook, Curry, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Lincoln, Malheur, Morrow, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco and Wheeler Counties

340-23-055 Open burning prohibitions for the counties of Baker, Clatsop, Crook, Curry, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Lincoln, Malheur, Morrow, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco and Wheeler:

- (1) Industrial open burning is prohibited except as provided in OAR 340-23-[070]100.
- (2) Agricultural open burning:
 - (a) In Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco and Wheeler Counties, agricultural open burning is allowed under[these rules] this Division subject to OAR 340-23-040(5).
 - (b) In Clatsop, Curry, Lincoln and Tillamook Counties agricultural open burning is allowed subject to OAR 340-23-040[and], 340-23-042<u>and 340-23-043</u>, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (3) Commercial open burning is allowed subject to OAR 340-23-040[and], 340-23-042<u>and 340-23-043</u>, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal, except that, <u>unless authorized</u> <u>pursuant to OAR 340-23-100</u>, all commercial open burning is prohibited in or within three (3) miles of the corporate city limits of the following cities[unless authorized <u>pursuant to OAR 340-23-100]</u>:
 - (a) In Baker County, the City of Baker.
 - (b) In Clatsop County, the Cities of Astoria and Seaside.
 - (c) In Crook County, the City of Prineville,
 - (d) In Curry County, the City of Brookings
 - [(d)](e) In Deschutes County, the Cities of Bend and Redmond,
 - [(c)](f) In Hood River County, the City of Hood River, [(f)](g) In Klamath County, the City of Klamath Falls.

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In Lincoln County, the Cities of Lincoln City [(g)](h) and Newport. [(h)](i) In Malheur County, the City of Ontario. $\frac{(i)}{(i)}$ In Umatilla County, the Cities of Hermiston, Milton-Freewater and Pendleton. In Union County, the City of La Grande. $\frac{(j)}{(k)}$ In Wasco County, the City of The Dalles. [(k)](1) Construction and Demolition open burning is allowed subject to the requirements and prohibitions of local jurisdictions, the State Fire Marshal, OAR 340-23-040+ and], 340-23-042 and 340-23-043, except that, unless authorized pursuant to OAR 340-23-100, Construction and Demolition open burning is prohibited in or within three (3) miles of the corporate city limits of the following In Baker County, the City of Baker, (a) In Clatsop County, the City of Astoria. (b) (C) In Crook County, the City of Prineville. (d) In <u>Curry</u> County, the City of Brookings. [(d)](e) In Deschutes County, the Cities of Bend and Redmond. In Hood River County, the City of Hood River. [(e)](f) In Klamath County, the City of Klamath Falls. <u>{(f)}</u> In Malheur County, the City of Ontario. [(g)](h) In Umatilla County, the Cities of Hermiston, [(h)](i) Milton-Freewater and Pendleton. In Union County, the City of La Grande. [(i)](i) In Wasco County, the City of The Dalles. $\frac{(j)}{(k)}$ Domestic open burning is allowed subject to the requirements and prohibitions of local jurisdictions, the State Fire Marshal, and OAR 340-23-040 [and], 340-23-042

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [477] 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; AQ 18, f. & ef. ###

Benton, Linn, Marion, Polk, and Yamhill Counties

340-23-060 Open burning prohibitions for Benton, Linn, Marion, Polk, and Yamhill Counties which form a part of the Willamette Valley open burning control area described in OAR 340-23-115:

(1) Industrial open burning is prohibited except as provided in OAR 340-23-100.

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(4)

(5)

and 340-23-043.

- (2) Agricultural open burning is allowed subject to OAR 340-23-040[and], 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:
 - (a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.
 - (b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste material, to burn after hours and into prohibition condition days.
- (3) Commercial open burning is prohibited except as provided in OAR 340-23-100.
- (4) Construction and Demolition open burning is allowed <u>outside</u> of <u>special control areas</u> subject to the requirements and prohibitions of local jurisdictions, the State Fire Marshal, OAR 340-23-040[and], 340-23-042 <u>and 340-23-043.</u>[, <u>except that u] Unless authorized pursuant to OAR</u> 340-23-100, Construction and Demolition open burning is prohibited within special control areas including the following:
 - (a) Areas in or within six (6) miles of the corporate city limit of <u>{ Salem}</u>:
 - (A) in Marion County, the cities of Salem and Keiser.
 - (B) [and]in Polk Count[ies]y, the city of Salem.
 - (b) Areas in or within three (3) miles of the corporate city limit of:
 - (A) In Benton County, the Cities of <u>Albany</u>, Corvallis and Philomath.
 - (B) In Linn County, the Cities of Albany, Brownsville, Harrisburg, Lebanon, Mill City and Sweet Home.
 - (C) In Marion County the Cities of Aumsville, <u>Gervais</u>, Hubbard, [Gervais,] Jefferson, Mill City, Mt. Angel, Silverton, Stayton, Sublimity, Turner and Woodburn.
 - (D) In Polk County, the Cities of Dallas, Independence[and], Monmouth <u>and Willamina</u>.
 - (E) In Yamhill County, the cities of Amity, Carlton, Dayton, Dundee, Lafayette, McMinnville, Newberg, Sheridan and Willamina.

- (5) Domestic open burning:
 - (a) As generally depicted in Figure 1 of OAR 340-23-115, domestic open burning is prohibited in the special control areas named in section (4) of this rule except that open burning of yard debris is allowed beginning March first and ending June fifteenth inclusive, and beginning October first and ending December fifteenth, inclusive, subject to OAR 340-23-040 and 340-23-042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
 - (b) Domestic open burning is allowed outside of special control areas named in section (4) of this rule subject to OAR 340-23-040[and], 340-23-042<u> and 340-</u> <u>23-043</u>, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
 - (c) No person shall cause or allow to be initiated or maintained any domestic open burning other than during daylight hours between 7:30 a.m. and two hours before sunset unless otherwise specified by the Department pursuant to OAR 340-23-043.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [477] 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 18, f. & ef. ###

Clackamas County

340-23-065 Open burning prohibitions for Clackamas County:

- (1) Industrial open burning is prohibited except as provided in OAR 340-23-100.
- (2) Agricultural open burning is allowed subject to OAR 340-23-040[and], 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:
 - (a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.

- (b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste material, to burn after hours and into prohibition condition days.
- (3) Commercial open burning is prohibited except as may be provided by OAR 340-23-100.
- (4) Construction and Demolition open burning is allowed <u>outside</u> of <u>special control areas</u> subject to OAR 340-23-040[-and], 340-23-042 <u>and 340-23-043</u>, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. <u>[except that u]U</u>nless authorized pursuant to OAR 340-23-100, Construction and Demolition open burning is prohibited within special control areas including the following:
 - (a) Areas in or within six (6) miles of the corporate city limits of Gladstone, Happy Valley, Lake Oswego, Milwaukie, Oregon City, Portland, Rivergrove, <u>Tualatin, [and]</u> West Linn<u>and Wilsonville</u>.
 - (b) Areas in or within three (3) miles of the corporate city limits of Canby, Estacada, Gresham, Molalla[,] and Sandy.[and Wilsonville].
- (5) Domestic open burning:
 - (a) As generally depicted in Figure 1A of OAR 340-23-115, domestic open burning is always prohibited within the following fire districts unless authorized pursuant to OAR 340-23-100: Clackamas County RFPD #1, that portion of Clackamas County RFPD #<u>5</u>4 which lies within the Metropolitan Service District, that portion of Clackamas County RFPD #71 which lies west of a line extending due north of the western tip of Beebe Island in the Clackamas River, Glenmorrie RFPD #66, Gladstone, Lakegrove RFPD #57, Lake Oswego, Milwaukie, Oregon City, Oak Lodge, Portland, Riverdale RFPD #60, Rosemont RFPD #67, that part of Tualatin[-RFPD #64] Valley Fire and Rescue District which lies north of I-205 and West Linn.
 - (b) In a{A}reas of Clackamas County generally depicted in Figure 1 of OAR 340-23-115 and not included in the area where burning is prohibited by OAR 340-23-065(5)(a), domestic open burning is prohibited except that open burning of yard debris is allowed within the following fire districts between March first and June fifteenth inclusive and between October first and December fifteenth inclusive, subject to OAR 340-23-040, [and] 340-23-042 and 340-

<u>23-042</u> and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:

- (A) Beaver Creek RFPD #55,
- (B) Boring RFPD #59,
- (C) Canby,
- (D) Canby RFPD #62,
- (E) That portion of Clackamas Co. RFPD #[54] which lies outside the Metropolitan Service District,
- (F) That portion of Clackamas RFPD #1 which lies east of a line extending due north of the western tip of Beebe Island in the Clackamas ^a River,
- (G) Happy Valley RFPD #65,
- (H) Sandy RFPD #2,
- (I) That part of Tualatin[RFPD #64] Valley Fire and Rescue District which lies south of I-205.
- (c) Domestic open burning is allowed in all other areas of Clackamas County subject to OAR 340-23-040 and 340-23-042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (d) No person shall cause or allow to be initiated or maintained any domestic open burning other than during daylight hours between 7:30 a.m. and two hours before sunset unless otherwise specified by Department pursuant to OAR 340-23-043.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [477] 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 18, f. & ef. ###

Multnomah County

340-23-070 Open burning prohibitions for Multnomah County:

- (1) Industrial open burning is prohibited except as provided in OAR 340-23-100.
- (2) Agricultural open burning is allowed subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:
 - (a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.

- (b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste material, to burn after hours and into prohibition condition days. Commercial open burning is prohibited except as provided in
- (3) Commercial open b OAR 340-23-100.

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- (4) Construction and Demolition open burning, unless authorized pursuant to OAR 340-23-100, is prohibited west of the Sandy River but is allowed east of the Sandy River subject to OAR 340-23-040,[-and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (5) Domestic open burning:
 - As generally depicted in Figure 1A of OAR 340-23-115, open burning is always prohibited within the following area of Multnomah County unless authorized pursuant to OAR 340-23-100: west of a line beginning at the eastern most point where the Portland city limit meets the Multnomah-Clackamas Counties line, thence northward and eastward along the Portland city limits to Johnson Creek, thence continuing eastward and northward along Johnson Creek to the Gresham city limit, thence northward and eastward along the Gresham city limit to 182nd Avenue, thence northward along 182nd Avenue to its junction with 181st Avenue, thence northward along 181st Avenue to Sandy Boulevard, thence eastward along Sandy Boulevard to 185th Avenue, thence northward along 185th Drive and its extension to the Columbia River and the state line, but excluding that portion of western Multnomah County included in Skyline RFPR #20, Sauvie Island, Burlington Water District and all other areas in northwestern Multnomah County which are outside of a Fire Protection District.
 - (b) As generally depicted in Figure 1 of OAR 340-23-115, domestic open burning is prohibited in areas of Multnomah County west of the Sandy River not included in the area where burning is prohibited by OAR 340-23-070(5)(a), except, that open burning of yard debris is allowed from March first to June fifteenth inclusive and from October first to December fifteenth inclusive, subject to OAR 340-23-040,[and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

- (c) Domestic open burning is allowed east of the Sandy River subject to OAR 340-23-040, [and] 340-23-042 and <u>340-23-043</u>, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (d) No person shall cause or allow to be initiated or maintained any domestic open burning other than during daylight hours between 7:30 a.m. and two hours before sunset unless otherwise specified by Department pursuant to OAR 340-23-043.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [477] 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 18, f. & ef. ###

Washington County

340-23-075 Open burning prohibitions for Washington County:

- (1) Industrial open burning is prohibited except as provided in OAR 340-23-100.
- (2) Agricultural open burning is allowed subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:
 - (a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.
 - (b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste material, to burn after hours into prohibition condition days.
- (3) Commercial open burning is prohibited except as may be provided by OAR 340-23-100.
- (4) Construction and Demolition open burning, unless authorized pursuant to OAR 340-23-100, is prohibited in all incorporated areas and areas within rural fire protection districts. Construction and demolition open burning is allowed in all other areas subject to OAR 340-23-040.[-and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

- (5) Domestic open burning:
 - (a) As generally depicted in Figure 1A of OAR 340-23-115, open burning is always prohibited within the following area of Washington County unless authorized pursuant to OAR 340-23-100:
 - That portion of Tualatin [RFPD] Valley Fire and (A) Rescue District north of I-205 plus the area including the cities of Tualatin, Durham, Tigard and King City, which is north of a line starting at the point where I-205 meets the Tualatin city limit, thence westward, southward, westward and finally northward along the Tualatin city limit to Highway 99W, thence northward along Highway 99W to the Tualatin River, thence westward along the Tualatin River to its intersection with the boundary of the Metropolitan Service District, thence generally northward and westward along the Metropolitan Service District Boundary between the Tualatin RFPD and Washington County RFPD #1.
 - (B) That part of <u>{ Washington County Rural} the</u> <u>Tualatin Valley</u> Fire <u>{ Protection} and Rescue</u> District <u>{ #1</u>} which is within the Metropolitan Service District.
 - (C) That part of Washington County Rural Fire Protection District #2 starting at the point where Highway 26 crosses the eastern boundary of the fire district, thence westward along Highway 26 to Cornelius Pass Road, thence northward along Cornelius Pass Road to West Union Road, thence eastward along West Union Road to the fire district boundary, thence southerly along the district boundary to the point of beginning.
 - (b) Excluding areas listed in subsection (a) of this section and the Tri-Cities RFPD, domestic open burning is prohibited in all municipal and rural fire protection districts of Washington County[excluding the Tri-Cities RFPD] as generally depicted in Figure 1 of OAR 340-23-115, except that open burning of yard debris is allowed between March first and June fifteenth inclusive and between October first and December fifteenth inclusive subject to OAR 340-23-040,[-and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

- (c) Domestic open burning is allowed in the Tri-Cities RFPD and in all unincorporated areas of Washington County outside of municipal or rural fire protection districts subject to OAR 340-23-040 and 340-23-042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (d) No person shall cause or allow to be initiated or maintained any domestic open burning other than during daylight hours between 7:30 a.m. and two hours before sunset unless otherwise specified by Department pursuant to OAR 340-23-043.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [-477] 468A
Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef.
6-16-84; AQ 18, f. & ef. ###

Columbia County

- 340-23-080 Open burning prohibitions for Columbia County:
- (1) Industrial open burning is prohibited unless authorized pursuant to OAR 340-23-100.
- (2) Agricultural open burning is allowed subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (3) Commercial open burning is prohibited unless authorized pursuant to OAR 340-23-100.
- (4) Construction and demolition open burning:
 - (a) Unless authorized pursuant to OAR 340-23-100, Construction and Demolition open burning is prohibited in and within three (3) miles of the city limits of Clatskanie, Rainier, St. Helens, Scappoose, and Vernonia.
 - (b) Construction and Demolition open burning is allowed in all other parts of Columbia County subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (5) Domestic open burning is allowed subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [477] 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81

Lane County

340-23-085 Open burning prohibitions for Lane County. That portion of Lane County east of Range 7 West, Willamette Meridian, forms a part of the Willamette Valley open burning control area as generally described in OAR 340-23-115(5) and depicted in Figure 2:

- (1) The rules and regulations of the Lane Regional Air Pollution authority shall apply to all open burning in Lane County provided such rules are no less stringent than the provisions of[these rules] this Division except that the Lane Regional Air Pollution Authority may not regulate agricultural open burning.
- (2) Industrial open burning is prohibited unless authorized pursuant to OAR 340-23-100.
- (3) Agricultural open burning is allowed subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal:
 - (a) Agricultural open burning within the purview of this rule will be prohibited between July 15 and September 15 unless specifically authorized by the Department on a particular day.
 - (b) Burning hours are during daylight hours unless otherwise set by the Department. Large piles of land clearing debris or stumps shall be handled in accordance with OAR 340-23-040(4)(c) and may be allowed, without addition of new waste material, to burn after hours and into prohibition condition days.
- (4) Commercial open burning, unless authorized pursuant to OAR 340-23-100, is prohibited in Lane County east of Range 7 West Willamette Meridian and in or within three (3) miles of the city limit of Florence on the coast. Commercial open burning is allowed in the remaining areas of Lane County subject to OAR 340-23-040 and 340-23-042 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (5) Construction and Demolition open burning, unless authorized pursuant to OAR 340-23-100, is prohibited within all fire districts and other areas specified in this section but is allowed elsewhere in Lane County subject to OAR

340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. Areas where open burning of construction and demolition waste is prohibited include: (a) Bailey-Spencer RFPD; Coburg RFPD; (b) (C) Cottage Grove; Creswell RFPD; (d) Crow Valley RFPD; (e) Dexter RFPD except that portion east of the (f) Willamette Meridian: Elmira-Noti RFPD except that portion west of the line (g) between Range 6 West and Range 7 West; Eugene Fire District; (h) (i) Eugene RFPD No. 1; (j) Goshen RFPD; Junction City Fire District; (k) (1)Junction City RFPD; Lane RFPD No. 1; (m) Lowell RFPD; (n) (0)Marcola RFPD; McKenzie RFPD except that portion east of the (p) Willamette Meridian: Monroe RFPD that portion within Lane County; (q) (r) Oakridge RFPD; Pleasant Hill RFPD; (s) (t) South Lane RFPD; Springfield Fire Department and those areas protected (u) by the Springfield Fire Department; (v) That portion of Western Lane Forest Protection District north of Section 11, T19S, R4W and bordering the City of Eugene and/or Crow Valley, Eugene #1, Goshen and Creswell RFPDs; Willakenzie RFPD: (W) (\mathbf{x}) Zumwalt RFPD; (Y) Those unprotected areas which are surrounded by or are bordered on all sides by any of the above listed fire protection districts or by Eastern Lane Forest Protection District. Domestic open burning: (a) Domestic open burning outside the fire districts listed in section (5) of this rule is allowed subject to OAR 340-23-040, [-and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. Domestic open burning is prohibited within all fire (b) districts listed in section (5) of this rule except

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that open burning of yard debris is allowed subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

(c) Refer to Lane Regional Air Pollution Authority open burning rules for specific seasons and hours for domestic open burning.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [477] 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84; AQ 18, f. & ef. ###

Coos, Douglas, Jackson and Josephine Counties 340-23-090 Open burning prohibitions for Coos, Douglas, Jackson and Josephine Counties:

- (1) Open burning control areas:
 - (a) The Coos Bay open burning control area as generally described in OAR 340-23-115 and depicted in Figure 3 is located in Coos County.
 - (b) The Umpqua Basin open burning control area as generally described in OAR 340-23-115, and depicted in Figure 5, is located in Douglas County.
 - (c) The Rogue Basin open burning control area as generally described in OAR 340-23-115 and depicted in Figure 4, is located in Jackson and Josephine Counties.
- (2) Industrial open burning is prohibited unless authorized pursuant to OAR 340-23-100.
- (3) Agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042, <u>340-23-043 and</u> 340-23-090(7), and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (4) Commercial open burning is prohibited within the Coos Bay, Umpqua Basin and Rogue Basin open burning control areas and in or within three (3) miles of the corporate city limits of Coquille and Reedsport unless authorized pursuant to OAR 340-23-100. Commercial open burning is allowed in all other areas of these counties subject to OAR 340-23-040<u>,</u> and] 340-23-042 and 340-23-043 and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.

- (5) Construction and Demolition open burning is prohibited within the Coos Bay, Umpqua Basin and Rogue Basin open burning control areas unless authorized pursuant to OAR 340-23-100. Construction and Demolition open burning is allowed in other areas of these counties subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (6) Domestic open burning is allowed subject to OAR 340-23-040, 340-23-042, <u>340-23-043 and</u> 340-23-090(7), and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (7) Upon publication by EPA of notice in the Federal Register that the Medford-Ashland Air Quality Maintenance Area or the Grants Pass Urban Growth Area or the Grants Pass Urban Growth Area has failed to attain the [n]Mational [a]Ambient [a]Air [q]Quality Standard for PM₁₀ by the attainment date required in the Clean Air Act, all open burning is prohibited within the Rogue Basin open burning control area during November, December, January, and February unless authorized pursuant to 340-23-100.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 477] 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; AQ 3, f. & ef. 11-13-91

Letter Permits

340-23-100

- (1) Open Burning of commercial, industrial, construction or demolition waste on a singly occurring or infrequent basis or the open burning of yard debris which is otherwise prohibited, may be permitted by a letter permit issued by the Department in accordance with this rule and subject to OAR 340-23-040, [and] 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. OAR 340-14-025, 340-20-140, and 340-20-150 through 340-20-185 shall not apply.
- (2) A letter permit may only be issued on the basis of a written application for disposal of material by burning which has been approved by the Department. Each application for a letter permit shall contain the following items:
 - (a) The quantity and type of material proposed to be burned;

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- (b) A listing of all alternative disposal methods and potential costs which have been identified or investigated;
- (c) The expected amount of time which will be required to complete the burning (not required for yard debris);
- (d) The methods proposed to be used to insure complete and efficient combustion of the material;
- (e) The location of the proposed burning site;
- (f) A diagram showing the proposed burning site and the structures and facilities inhabited or used in the vicinity including distances thereto;
- (g) The expected frequency of the need to dispose of similar materials by burning in the future.
- (h) Any other information which the applicant considers relevant or which the Department may require.
- (i) For open burning of yard debris:
 - (A) A "Hardship Permit Application" completed on a form supplied by the Department; and
 - (B) Either payment of the appropriate fee pursuant to section (11) of this rule or a "waiver request" completed on a form supplied by the Department.
- (3) Upon receipt of a written application the Department may approve the application if it is satisfied that:
 - (a) The applicant has demonstrated that all reasonable alternatives have been explored and no practicable alternative method for disposal of the materials exists; and
 - (b) The proposed burning will not cause or contribute to significant degradation of air quality.
- (4) The Department[also] may deny an application for a letter permit or revoke or suspend an issued letter permit on any of the following grounds:
 - (a) Any material misstatement or omission in the application or a history of such misstatements or omissions by the applicant;
 - (b) Any actual or projected violation of any statute, rule, regulation, order, permit, ordinance, judgment or decree.
- (5) In making its determination under section (3) of this rule, the Department may consider:
 - (a) The conditions of the airshed of the proposed burning;
 - (b) The other air pollution sources in the vicinity of the proposed burning;

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- (c) The availability of other methods of disposal, and special circumstances or conditions which may impose a hardship on an applicant;
- (d) The frequency of the need to dispose of similar materials in the past and expected in the future;
- (e) The applicant's prior violations, if any;
- (f) The projected effect upon persons and property in the vicinity; and
- (**[q]g**) Any other relevant factor.
- Each letter permit issued by the Department pursuant to section (2) of this rule shall contain at least the following elements:
 - (a) The location at which the burning is permitted to take place.
 - (b) The number of actual calendar days on which burning is permitted to take place, not to exceed seven (7). Burning pursuant to a permit for yard debris shall be limited to three (3) days per season unless satisfactory justification for more burning is provided by the applicant.
 - (c) The period during which the permit is valid, not to exceed a period of thirty (30) consecutive days, except a permit for yard debris. The actual period in the permit shall be specific to the needs of the applicant.
 - (d) A letter permit for yard debris shall be valid for a single burning season or for both the spring and fall burning seasons during a calendar year, as appropriate to the application and the fee paid pursuant to the schedule in[OAR 340-23-100] section (11) of this rule. The spring burning is from March 1 to June 15, inclusive, and the fall burning season is from October 1 to December 15, inclusive.
 - (e) Equipment and methods required to be used by the applicant to insure that the burning is accomplished in the most efficient manner over the shortest period of time to minimize smoke production.
 - (f) The limitations, if any, based on meteorological conditions required before burning may occur. Open burning under permits for yard debris shall be limited to the hours and times which limit seasonal domestic yard debris burning permitted in the county where the burning under the letter permit is to occur.
 - (g) Reporting requirements for both starting the fire each day and completion of the requested burning, (optional for permits for yard debris).

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- (h) A statement that OAR 340-23-040 and OAR 340-23-042 are fully applicable to all burning under the permit.
- (i) Such other conditions as the Department considers to be desirable.
- (7) Regardless of the conditions contained in any letter permit, each letter permit, except permits for yard debris, shall be valid for not more than thirty (30) consecutive calendar days of which a maximum of seven (7) can be used for burning. The Department may issue specific letter permits for shorter periods.
- (8) Letter permits shall not be renewable. Any requests to conduct additional burning shall require a new application and a new permit.
- (9) For locations within Clackamas, Columbia, Multnomah and Washington Counties, letter permits may be issued only for the purpose of disposal of:
 - (a) Material resulting from emergency occurrences including, but not limited to floods, storms or oil spills.
 - (b) Material originating as yard debris which has been collected and stored by governmental jurisdictions provided that no other reasonable means of disposal are available.
 - (c) Yard debris excluding grass clippings and leaf piles, on the property of a private residence where the inability to burn creates a significant hardship due to:
 - (A) An economic burden when the estimated cost of alternative means of yard debris disposal presents a financial hardship in relation to household income and expenses of the applicant.
 - (B) A physical handicap, personal disability, chronic illness, substantial infirmity or other physical limitation substantially inhibiting the ability of the applicant to process or transport yard debris; or
 - (C) Inaccessibility of yard debris, where steepness of terrain or remoteness of the debris site makes access by processing or transportation equipment unreasonable.
- (10) No person shall violate any condition, limitation, or term of a letter permit.
- (11) All applications for a letter permit for yard debris shall be accompanied by a permit fee which shall be payable to the Department and become non-refundable upon issuance of the permit. The fee to be submitted is:

 (a) For a single burning season, spring or fall \$20.

(b) For a calendar year - \$30.

(12) The Department may waive the single season permit fee if the applicant shows that the cost of the hardship permit presents an extreme financial hardship in relation to the household income and expenses of the applicant.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & <u>477]</u> 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84

Forced Air Pit Incinerators

340-23-105 Forced air pit incineration may be approved as an alternative to open burning prohibited by[these rules] this **Division**, provided that the following conditions shall be met:

- (1) The person requesting approval of forced air pit incineration shall demonstrate to the satisfaction of the Department that no feasible or practicable alternative to forced-air pit incineration exists.
- (2) The forced-air pit incineration facility shall be designed, installed, and operated in such a manner that visible emissions do not exceed forty percent (40%) opacity, as <u>measured by EPA Method 9,</u> for more than three (3) minutes out of any one (1) hour of operation following the initial thirty (30) minute startup period.
- (3) The person requesting approval of a forced-air pit incineration facility shall be granted an approval of the facility only after a Notice of Construction and Application for Approval is submitted pursuant to OAR 340-20-020 through 340-20-030.
- (4) A forced-air pit permit for operation of a forced air pit incineration facility shall be required and shall be based on the same conditions and requirements stipulated for letter permits in OAR 340-23-100, which is included here by reference, except that the term of the permit shall not be limited to thirty (30) days and the operation of the facility shall not be limited to seven (7) days, but both the term of the permit and the operation limit of the facility shall be specified in the permit and shall be appropriate to the purpose of the facility.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & [477] 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81

Records and Reports

340-23-110[As required by ORS 476.380(4) and 478.960(7), fire permit issuing agencies shall maintain records of open burning permits and the conditions thereof, and shall submit such records or summaries thereof to the Commission as may be required. Forms for any reports required under this rule shall be provided by the Department.

Stat. Auth.: ORS Ch. 468 & 477 Hist.:] [DEQ 123, f. & ef. 10-20-76; DEQ 27-1981, f. & ef. 9-8-81; Renumbered from 340-23-050; Repealed by DEQ]

Open Burning Control Areas

340-23-115 Generally areas around the more densely populated locations in the state and valleys or basins which restrict atmospheric ventilation are designated open burning control areas. The practice of open burning may be more restrictive in open burning control areas than in other areas of the state. The specific open burning restrictions associated with these Open Burning Control Areas are listed in OAR 340-23-055 through OAR 340-23-090 by county. The general locations of Open Burning Control Areas are depicted in Figures 2 through 5 of this rule. The Open Burning Control Areas of the state are defined as follows:

- (1) All areas in or within three miles of the incorporated city limit of all cities with a population of 4,000 or more.
- (2) The Coos Bay Open Burning Control Area is located in Coos County with boundaries as generally depicted in Figure 3 of this rule. The area is enclosed by a line beginning at a point approximately 4-1/2 miles WNW of the City of North Bend, at the intersection of the north boundary of T25S, R13W, and the coastline of the Pacific Ocean; thence east to the NE corner of T25S, R12W; thence south to the SE corner of T26S, R12W; thence west to the intersection of the south boundary of T26S, R14W and the coastline of the Pacific Ocean; thence northerly and easterly along the coastline of the Pacific Ocean to its intersection with the north boundary of T25S, R13W, the point of beginning.
- (3) The Rogue Basin Open Burning Control Area is located in Jackson and Josephine Counties with boundaries as generally depicted in Figure 4 of this rule. The area is enclosed by a line beginning at a point approximately 4-1/2 miles NE of the City of Shady Cove at the NE corner of T34S, R1W, Willamette Meridian; thence south along the Willamette

Meridian to the SW corner of T37S, R1W; thence east to the NE corner of T38S, R1E; thence south to the SE corner of T38S, R1E; thence east to the NE corner of T39S, R2E; thence south to the SE corner of T39S, R2E; thence west to the SW corner of T39S, R1E; thence NW along a line to the NW corner of T39S, R1W; thence west to the SW corner of T38S, R2W; thence north to the SW corner of T36S, R2W; thence west to the SW corner of T36S, R4W; thence south to the SE corner of T37S, R5W; thence west to the SW corner of T37S, R6W; thence north to the NW corner of T36S, R6W; thence east to the SW corner of T35S, R1W; thence north to the NW corner of T34S, R1W; thence east to the point of beginning.

- The Umpqua Basin Open Burning Control Area is located in (4)Douglas County with boundaries as generally depicted in Figure 5 of this rule. The area is enclosed by a line beginning at a point approximately 4 miles ENE of the City of Oakland, Douglas County, at the NE corner of T25S, R5W, Willamette Meridian; thence south to the SE corner of T25S, R5W; thence east to the NE Corner of T26S, R4W; thence south to the SE corner of T27S, R4W; thence west to the SE corner of T27S, R5W; thence south to the SE corner of T30S, R5W; thence west to the SW corner of T30S, R6W; thence north to the NW corner of T29S, R6W; thence west to the SW corner of T28S, R7W thence north to the NW corner of T27S, R7W; thence east to the NE corner of T27S, R7W; thence north to the NW corner of T26, R6W; thence east to the NE corner of T26S, R6W; thence north to the NW corner of T25S, R5W; thence east to the point of beginning.
- (5) The boundaries of the Willamette Valley Open Burning Control Area are generally depicted in Figures 1 and 2 of this rule. The area includes all of Benton, Clackamas, Linn, Marion, Multnomah, Polk, Washington and Yamhill counties and that portion of Lane County east of Range 7 West.
- (6) Special control areas are established around cities within the Willamette Valley Open Burning control area. The boundaries of these special control areas are determined as follows:
 - (a) Any area in or within three (3) miles of the boundary of any city of more than 1,000 but less than 45,000 population.
 - (b) Any area in or within six (6) miles of the boundary of any city of 45,000 or more population.
 - (c) Any area between areas established by this rule where the boundaries are separated by three (3) miles or less.

- (d) Whenever two or more cities have a common boundary, the total population of these cities will determine the applicability of subsection (a) or (b) of this section and the municipal boundaries of each of the cities shall be used to determine the limit of the special control area.
- (7) A domestic burning ban area around the Portland metropolitan area is generally depicted in Figure 1A. This area encompasses parts of the special control area in Clackamas, Multnomah and Washington Counties. Specific boundaries are listed in OAR 340-23-065(5), 340-23-070(5) and 340-23-075(5). Domestic burning is prohibited in this area except as allowed pursuant to OAR 340-23-100.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & <u>477]</u> 468A Hist.: DEQ 27-1981, f. & ef. 9-8-81; DEQ 10-1984, f. 5-29-84, ef. 6-16-84

MOTOR VEHICLES

DIVISION 24

VISIBLE EMISSIONS

Definitions

340-24-005 As used in <u>these rules unless otherwise</u> required by context] OAR 340-24-005 through 340-24-040:

- (1) "Dealer" means any person who is engaged wholly or in part in the business of buying, selling, or exchanging, either outright or on conditional sale, bailment lease, chattel mortgage, or otherwise, motor vehicles.
- (2) "Department" means Department of Environmental Quality.
- (3) "Motor vehicle" means any self-propelled vehicle designed and used for transporting persons or property on a public street or highway.
- (4) "Motor vehicle fleet operation" means ownership, control, or management or any combination thereof by any person of five or more motor vehicles.
- (5) "Opacity" means the degree to which transmitted light is obscured, expressed in percent.
- (6) "Person" means any individual, public or private corporation, political subdivision, agency, board, department, or bureau of the state, municipality, partnership, association, firm, trust, estate, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties.
- (7) "Regional authority" means a regional air quality control authority established under the provisions of ORS[449.760 to 449.840 and 449.850 to 449.920] <u>468A.005</u> to <u>468A.035</u>, <u>468A.075</u>, <u>468A.100</u> to <u>468A.130</u>, and <u>468A.140</u> to <u>468A.175</u>.
- (8) "Ringlemann Smoke Chart" means the Ringlemann Smoke Chart with instructions for use as published in May, 1967, by the U.S. Department of Interior, Bureau of Mines.
- ({8}) "Visible emissions" means those gases or particulates, excluding uncombined water, which separately or in combination are visible upon release to the outdoor atmosphere.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 8, f. 4-7-70, ef. 5-11-70

Visible Emissions - General Requirements, Exclusions 340-24-010

- (1) No person shall operate, drive, or cause or permit to be driven or operated any motor vehicle upon a public street or highway which emits into the atmosphere any visible emission.
- (2) Excluded from this rule are those motor vehicles:
 - (a) Powered by compression ignition or diesel cycle engines;
 - (b) Excluded by written order of the Department by ORS[449.810] 468A.075.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 8, f. 4-7-70, ef. 5-11-70

Visible Emissions - Special Requirements for Excluded Motor Vehicles

340-24-015 No person shall operate, drive, or cause or permit to be driven or operated upon a public street or highway, any motor vehicle excluded from [rule] OAR 340-24-010 which:

- (1) When operated at an elevation of 3,000 feet or less, emits visible emissions into the atmosphere:
 - (a) Of an opacity greater than 40%;
 - (b) Of an opacity of ten percent or greater for a period exceeding seven consecutive seconds.
- (2) When operated at an elevation of over 3,000 feet, emits visible emissions into the atmosphere:
 - (a) Of an opacity greater than 60%;
 - (b) Of an opacity of 20% or greater for a period exceeding seven consecutive seconds.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 8, f. 4-7-70, ef. 5-11-70

Uncombined Water - Water Vapor

340-24-020 Where the presence of uncombined water is the only reason for failure of an emission to meet the requirements of <u>f-rule] OAR</u> 340-24-010 or 340-24-015, such rules shall not apply.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 8, f. 4-7-70, ef. 5-11-70

Motor Vehicle Fleet Operation 340-24-025

- (1) The Department may, by written notice, require any motor vehicle fleet operation to certify annually that its motor vehicles are maintained in good working order, and if applicable, in accordance with motor vehicle manufacturer's specifications and maintenance schedule as may or tend to affect visible emissions. Records pertaining to observations, tests, maintenance, and repairs performed to control or reduce visible emissions from individual motor vehicles shall be available for review and inspection by the Department.
- (2) The Department, by written notice, may require any motor vehicle of a motor vehicle fleet operation to be tested for compliance with{ rules} OAR 340-24-010 and 340-24-015.
- A regional authority, within its territory, may perform the functions of the Department as set forth in sections (1) and (2) of this rule, upon written directive of the Department permitting such action.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 8, f. 4-7-70, ef. 5-11-70

Dealer Compliance

340-24-030 No dealer shall sell or offer for sale, exchange, or lease, any motor vehicle which operates in violation of<u>frules] OAR</u> 340-24-010 or 340-24-015, except as permitted by federal regulations.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 8, f. 4-7-70, ef. 5-11-70

Method of Measurement

340-24-035 The opacity observation for purposes of [these rules] OAR 340-24-010 through 340-24-030 shall be made by a person trained as an observer; provided, however, that[the] a <u>Ringlemann Smoke[Opacity]</u> Chart[, marked "Exhibit A", with instructions for use, attached hereto and by reference incorporated into these rules] may be used in measuring the opacity of emissions for purposes of [these rules] OAR 340-24-010 through 340-24-030.[(See Exhibit A at the end of this division.)]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 8, f. 4-7-70, ef. 5-11-70

Adoption of Alternative Methods of Measuring Visible Emissions 340-24-040

- (1) The Department may permit the use of alternative methods of measurement to determine compliance with the visible emissions standards in[rules] OAR 340-24-010 and 340-24-015 when such alternative methods are demonstrated to be reproducible, selective, sensitive, accurate and applicable to a specific program.
- (2) Any person desiring to utilize alternative methods of measurement shall submit to the Department such specifications and test data as the Department may require, together with a detailed specific program for utilizing the alternative methods. The Department shall require demonstration of the effectiveness and suitability of the program.
- (3) No person shall undertake a program using an alternative method of measurement without having obtained prior written approval of the Department.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 8, f. 4-7-70, ef. 5-11-70

Enforcement

340-24-045 [DEQ 8, f. 4-7-70; ef. 5-11-70 Repealed by DEQ 37, f. 2-15-72, ef. 3-1-72]

Pertaining to Motor Vehicle Inspection

County Designations 340-24-100

- (1) Pursuant to the requirements of ORS[-449.957] 468A.360,
- (1) Indicate the frequirements of one (19.557) <u>totalsto</u>, Clackamas, Multnomah, and Washington (C)counties are hereby designated by the Environmental Quality Commission as counties in which all motor vehicles registered therein, unless otherwise exempted by statute or by rules subsequently adopted by the Commission, shall be equipped with a motor vehicle pollution control system and shall comply with motor vehicle emission standards adopted by the Commission.

[(2) The effective-date-of-this regulation is May-31, 1974.]

Stat. Auth.: ORS Ch. [449] 468 & 468A Hist.: DEQ 51, f. 3-20-73, ef. 4-1-73; DEQ 62, f. 12-5-73, ef. 12-25-73

{Criteria for Certification of Motor Vehicle Pollution Control Systems

Criteria for Certification of Motor Vehicle Pollution Control Systems

340-24-200 Pursuant to the requirements of ORS[449.953(1)] <u>468A.365</u>, the following are the criteria for certification of motor vehicle pollution control systems as defined by ORS[<u>449.949]</u> <u>468A.350</u>:

- (1) A motor vehicle pollution control system which necessitates equipment designed for installation on a motor vehicle for the purpose of reducing the pollutants emitted from the vehicle shall not be certified.
- (2) A motor vehicle pollution control system which necessitates modifications, other than adjustments, to the original design of the motor vehicle shall not be certified.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 66, f. 2-5-74, ef. 2-25-74

Motor Vehicle Emission Control Inspection Test Criteria, Methods, and Standards

Scope

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340-24-300 Pursuant to ORS[468.360 to 468.405, 803.350, 815.295 to 815.325 and] 467.030, 468A.350 to 468A.400, 803.350, and 815.295 to 815.325, [the following rules] OAR 340-24-300 through 340-24-350 establish the criteria, methods, and standards for inspecting motor vehicles to determine eligibility for obtaining a Certificate of Compliance or inspection.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 467, 468[& 481] & 468A Hist.: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 139, f. 6-30-77, ef. 7-1-77; DEQ 23-1984, f. 11-19-84, ef. 4-1-85

Boundary Designations 340-24-301

(1) In addition to the area specified in ORS 815.300, pursuant to ORS[468.397] 468A.390, the following geographical area, referred to as the Medford-Ashland AQMA, is designated as an area within which motor vehicles are subject to the requirement under ORS 815.300 to have a Certificate of Compliance issued pursuant to ORS[468.390] 468A.380 to be

registered or have the registration of the vehicle renewed. As used in this section, "Medford-Ashland Air Quality (2) Maintenance Area" means the area of the state beginning at a point approximately one mile northeast of the town of Eagle Point, Jackson County, Oregon, at the northeast corner of section 36, T35S, R1W; thence south along the Willamette Meridian to the southeast corner of section 25, T37S, R1W; thence southeast along a line to the southeast corner of section 9, T395, R2E; thence south-southeast to the southeast corner of section 22, T39S, R2E; thence south to the southeast corner of section 27, T39S, R2E; thence southwest to the southeast corner of section 33, T395[.], R2E; thence west to the southwest corner of section 31, T39S, R2E; thence northwest to the northwest corner of section 36, T39S, R1E; thence west to the southwest corner of section 26, T39S, R1E; thence northwest along a line to the southeast corner of section 7, T39S, R1E; thence west to the southwest corner of section 12, T39S, R1W; thence northwest along a line to the southwest corner of section 20, T3[9]8S, R1W; thence west to the southwest corner of section 24, T38S, R2W; thence northwest along a line to the southwest corner of section 4, T38S, R2W; thence west to the southwest corner of section 5, T38S, R2W; thence northwest along a line to the southwest corner of section 31, T37S, R2W; thence north along a line to the Roque River, thence north and east along the Roque River to the north boundary of section 32, T35S, R1W; thence east along a line to the point of beginning. f(3) The above area is shown in Exhibit 1.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 11-1985, f. 9-30-85, ef. 1-1-86; DEQ 21-1988, f. & cert. ef. 9-12-88

Definitions

340-24-305 As used in <a href="https://www.secondescondingencemberships.com/second-24-305/list-action-complete-scolar-second-complete-sco

- (1) "Carbon dioxide" means a compound consisting of the chemical formula (CO₂).
- (2) "Carbon monoxide" means a compound consisting of the chemical formula (CO).
- (3) "Certificate of Compliance" means a certification issued by a vehicle emission inspector that the vehicle identified on the certificate is equipped with the required functioning

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motor vehicle pollution control systems and otherwise complies with the emission control criteria, standards, and rules of the Commission.

[(4) "Certificate of inspection" means a certification issued-by a vehicle emission inspector and affixed to a vehicle by the inspector to identify the vehicle as being equipped with the required functioning motor vehicle pollution control systems and as otherwise complying with the emission control criteria, standards, and rules of the Commission.]

- ([5]4) "Commission" means the Environmental Quality Commission.
- ([6]5) "Crankcase emissions" means substances emitted directly to the atmosphere from any opening leading to the crankcase of a motor vehicle engine.
- ([7]6) "Department" means the Department of Environmental Quality.
- ([8]<u>7</u>) "Diesel motor vehicle" means a motor vehicle powered by a compression-ignition internal combustion engine.
- ([9]8) "Director" means the director of the Department.
- ([10]9) "Electric vehicle" means a motor vehicle which uses a propulsive unit powered exclusively by electricity.
- (1[1]0) "Exhaust emissions" means substances emitted into the atmosphere from any opening downstream from the exhaust ports of a motor vehicle engine.
- (1[2]1) "Factory-installed motor vehicle pollution control system" means a motor vehicle pollution control system installed by the vehicle or engine manufacturer to comply with United States motor vehicle emission control laws and regulations.
- (1[3]2) "Gas analytical system" means a device which[-senses] measures the amount of contaminants in the exhaust emissions of a motor vehicle, and which has been issued a license by the Department pursuant to[rule] OAR 340-24-350[of these rules] and ORS[468.390] 468A.380.
- (1[4]3) "Gaseous fuel" means, but is not limited to, liquefied petroleum gases and natural gases in liquefied or gaseous forms.
- (1[5]4) "Gasoline motor vehicle" means a motor vehicle powered by a spark-ignition internal combustion engine.
- (15) "Gross vehicle weight rating" or "GVWR" means the value specified by the manufacturer as the maximum design loaded weight of a single vehicle.
- (16) "Heavy duty motor vehicle" means any motor vehicle <u>having a combined manufacturer vehicle and maximum load rating to be carried thereon of more than 3855 kilograms (8500 pounds)] rated at more than 8500 pounds GVWR or that has an actual vehicle curb weight as delivered to the ultimate purchaser of</u>

6000 pounds or over.

- (17) "Hydrocarbon gases" means a class of chemical compounds consisting of hydrogen and carbon.
- (18) "Idle speed" means the unloaded engine speed when accelerator pedal is fully released.
- (19) "In-use motor vehicle" means any motor vehicle which is not a new motor vehicle.
- (20) "Light duty motor vehicle" means any motor vehicle; excluding motorcycles, having a combined manufacturer vehicle and maximum load rating to be carried thereon of not more than 3855 kilograms (8500 pounds); rated at 8500 pounds GVWR or less and has an actual vehicle curb weight as delivered to the ultimate purchaser of under 6000 pounds.
- (21) "Model year" means the annual production period of new motor vehicles or new motor vehicle engines designated by the calendar year in which such period ends. If the manufacturer does not designate a production period, the model year with respect to such vehicles or engines shall mean the 12-month period beginning January of the year in which production thereof begins.
- (22) "Motorcycle" means any motor vehicle, including mopeds, having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground and having a mass of 680 kilograms (1500 pounds) or less with manufacturer recommended fluids and nominal fuel capacity included.
- (23) "Motor vehicle" means any self-propelled vehicle used for transporting persons or commodities on public roads.
- (24) "Motor vehicle fleet operation" means ownership by any person of 100 or more Oregon_registered, in-use, motor vehicles, excluding those vehicles held primarily for the purpose[s] of resale.
- (25) "Motor vehicle pollution control system" means equipment designed for installation on a motor vehicle for the purpose of reducing the pollutants emitted from the vehicle, or a system or engine adjustment or modification which causes a reduction of pollutants emitted from the vehicle, or a system or device which inhibits the introduction of fuels which can adversely [e]affect the overall motor vehicle pollution control system.
- (26) "New motor vehicle" means a motor vehicle whose equitable or legal title has never been transferred to a person who in good faith purchases the motor vehicle for purposes other than resale.
- (27) "Noise level" means the sound pressure level measured by use of metering equipment with an "A" frequency weighting network and reported as dBA.

- (28) "Owner" means the person having all the incidents of ownership in a vehicle or where the incidents of ownership are in different persons, the person, other than a security interest holder or lessor, entitled to the possession of a vehicle under a security agreement, or a lease for a term of ten or more successive days.
- (29) "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.
- (30) "PPM" means parts per million by volume.
- (31) "Propulsion exhaust noise" means that noise created in the propulsion system of a motor vehicle that is emitted into the atmosphere from any opening downstream from the exhaust ports. This definition does not include exhaust noise from vehicle auxiliary equipment such as refrigeration units powered by a secondary motor.
- (32) "Public roads" means any street, alley, road, highway, freeway, thoroughfare, or section thereof in this state used by the public or dedicated or appropriated to public use.
- (33) "RPM" means engine crankshaft revolutions per minute.
- (34) "Two-stroke cycle engine" means an engine in which combustion occurs, within any given cylinder, once each crankshaft revolution.
- (35) "Vehicle emission inspector" means any person possessing a current and valid license issued by the Department pursuant to[rule] OAR 340-24-340[of these rules] and ORS[-468.390] 468A.380.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 139, f. 6-30-77, ef. 7-1-77; DEQ 9-1978, f. & ef. 7-7-78; DEQ 22-1979, f. & ef. 7-5-79; DEQ 18-1980, f. & ef. 6-25-80; DEQ 12-1982, f. & ef. 7-21-82; DEQ 23-1984, f. 11-19-84, ef. 4-1-85

[Publicly]Government-Owned and Permanent Fleet Vehicle Testing Requirements

340-24-306

- (1) All motor vehicles registered as government-owned vehicles under ORS[481.125] 805.040 which are required to be certified annually pursuant to ORS[481.190] 815.300 shall, as means of that certification, obtain a Certificate of Compliance.
- (2) All motor vehicles registered as permanent fleet vehicles under ORS 805.120 which are required to be certified pursuant to ORS 803.350 and 815.295 to 815.325 shall, as means of that certification, obtain a Certificate of Compliance.
- (3) Any motor vehicle which is to be registered under ORS 805.040 or 805.120, but is not a new motor vehicle, shall obtain a Certificate of Compliance prior to that registration as [-so] required by ORS 803.350 and 815.295 to 815.325.
- (4)For the purposes of providing a staggered certification schedule for vehicles registered as government-owned vehicles under ORS 805.040 or permanent fleet vehicles under ORS 805.120, such schedule shall, except as provided by section (5) of this rule, be on the basis of the final numerical diqit contained on the vehicle license plate. Such certification shall be completed by the last day of the month provided below ([b]ast [D]<u>d</u>igit and as [M]month, respectively):

(a)	1	January;
(b)	2	February;
(C)	3	March;
(d)	4	April;
(e)	5	May;
(f)	6	June;
(g)	7	
(h)	8	August;
(i)	9	September;
(i)	0	October.

(5) In order to accommodate a fleet's scheduled maintenance practices, the Department may establish a specific separate schedule for vehicles registered as government-owned vehicles under ORS 805.040 or permanent fleet vehicles under ORS 805.120 if these vehicles are owned by fleets[,] licensed under the self-inspection program, OAR 340-24-340.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[&], 468<u> & 468A</u> Hist.: DEQ 3-1978, f. 3-1-78, ef. 4-1-78; DEQ 19-1983, f. 11-29-83, ef. 12-31-83

OREGON ADMINISTRATIVE RULES

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Motor Vehicle Inspection Program Fee Schedule

340-24-307f-The following is This rule sets out the fee schedule for Certificates of Compliance, and licenses issued by the Department of Environmental Quality, Vehicle Inspection Program: (1)\$10 Issued by Department (2)\$5 Issued by Licensed Motor Vehicle Fleet Operation Motor Vehicle Fleet Operation: (3)\$5 (a) (b) \$1 Fleet Operation Vehicle Emission Inspectors: (4)(a) \$5 (b) \$1 Exhaust Gas Analy[s]zer System: (5)\$5 Initial (a) (b) \$1

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[&], 468<u> & 468A</u> Hist.: DEQ 20-1981, f. 7-28-81, ef. 8-1-81; AQ 16, f & ef. 2-4-92

Light Duty Motor Vehicle Emission Control Test Method 340-24-310

- (1) The vehicle emission inspector is to insure that the gas analytical system is properly calibrated prior to initiating a vehicle test.
- (2) The Department_approved vehicle information data form is to be completed at the time[of] the motor vehicle[being] is inspected.
- (3) Vehicles having coolant, oil, or fuel leaks or any other such defect that is unsafe to allow the emission test to be conducted shall be rejected from the testing area. The emission test shall not be conducted until the defects aref eliminated] corrected.
- (4) The vehicle transmission is to be placed in neutral gear if equipped with a manual transmission, or in park position if equipped with an automatic transmission. [with-t]The hand or parking brake is to be engaged. If the brake is found to be defective, then wheel chocks are to be placed in front and behind the vehicle's tires.
- (5) All vehicle accessories are to be turned off.

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- (6) An inspection is to be made to insure that the motor vehicle is equipped with the required functioning motor vehicle pollution control system in accordance with the criteria [-of rule] in OAR 340-24-320(3). Vehicles not meeting this criteria upon completion of the testing process, shall have a report issued to the driver stating all reasons for noncompliance.
- (7) With the engine operating at idle speed, the sampling probe of the gas analytical system is to be inserted into the engine exhaust outlet.
- (8) The steady state levels of the gases measured at idle speed by the gas analytical system shall be recorded. Except for diesel vehicles, the idle speed at which the gas measurements were made shall also be recorded.
- (9) Except for diesel vehicles, the engine is to be accelerated with no external loading applied, to a speed of between 2,200 RPM and 2,700 RPM. The engine speed is to be maintained at a steady speed within this speed range for a 10- to 15-second period and then returned to an idle speed condition. In the case of a diesel vehicle, the engine is to be accelerated to an above-idle speed. The engine speed is to be maintained at a steady above-idle speed for a 10- to 15-second period and then returned to an idle speed condition. The values measured by the gas analytical system at the raised rpm speed shall be recorded.
- (10) The steady-state levels of the gases measured at idle speed by the gas analytical system shall be recorded. Except for diesel vehicles, the idle speed at which the gas measurements were made shall also be recorded.
- (11) If the vehicle is equipped with a multiple_exhaust system, then the steps in sections (7) through (10) of this rule are to be repeated on the other exhaust outlet(s). The readings from the exhaust outlet, or the average reading from the exhaust outlets are to be compared to the standards of{ rule} OAR 340-24-330.
- (12) If the vehicle does not comply with the standards specified in[rule] OAR 340-24-330, and it is a 1981[or newer] through <u>1987</u> Ford Motor Company vehicle, or if it[s] is a 1984[through 1986] or 1985 Honda Prelude[;], the vehicle shall have the ignition turned off, be restarted, and have the steps in sections (8) through (11) of this rule repeated.
- (13) If the vehicle is capable of being operated with both gasoline and gaseous fuels, then <u>the</u> steps <u>in sections</u> (7) through (10) of this rule are to be repeated so that emission test results are obtained for both fuels.

- (14) If it is judged that the vehicle may be emitting propulsion exhaust noise in excess of the noise standards of <u>rule</u><u>OAR</u> 340-24-337, adopted pursuant to ORS 467.030, then a noise measurement is to be conducted and recorded while the engine is at the speed specified in section (9) of this rule. A reading from each exhaust outlet shall be recorded at the raised engine speed. This provision for noise inspection shall apply only within inspection boundaries located within Clackamas, Multnomah and Washington <u>fClc</u>ounties.
- (15) If it is determined that the vehicle complies with[the criteria of rule] OAR 340-24-320,[and the standards of rule] 340-24-330, and 340-24-337, and ORS 467.030, 468A.350 through 468A.400, 803.350 and 815.295 through 815.325, then, following receipt of the required fees, the vehicle emission inspector shall issue the required [c]Certificates of [c]Compliance[and inspection].
- [(16) The inspector shall affix any certificate of inspection issued to the lower left-hand side (normally the driver side) of the front windshield, being careful not to obscure the vehicle identification number nor to obstruct driver vision.]
- [(17) No certificate of compliance or inspection shall be issued unless the vehicle complies with all requirements of these rules and those applicable provisions of ORS 468.360 to 468.405, 803.350, 815.295 to 815.325 and 467.030.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[&], 468 <u>& 468A</u> Hist.: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 139, f. 6-30-77, ef. 7-1-77; DEQ 20-1981, f. 7-28-81, ef. 8-1-81; DEQ 12-1982, f. & ef. 7-21-82; DEQ 19-1983, f. 11-29-83, ef. 12-31-83; DEQ 23-1984, f. 11-19-84, ef. 4-1-85; DEQ 6-1985, f. & ef. 5-1-85; DEQ 21-1988, f. & cert. ef. 9-12-88

Motorcycle Noise Emission Control Test Method 340-24-311

(1) The vehicle is to be in neutral gear with the brake engaged. If the vehicle has no neutral gear, the rear wheel shall be at least[2] two inches clear of the ground.

- (2) The engine is to be accelerated to a speed equal to 45 percent of the red line speed. Red_line speed is the lowest numerical engine speed included in the red zone on the motorcycle tachometer. If the red_line speed is not available, the engine shall be accelerated to 50 percent of the speed at which the engine develops maximum rated net horsepower.
- (3) If it is judged that the vehicle may be emitting propulsion exhaust noise in excess of the noise standards of<u>f rule] OAR</u> 340-24-337, adopted pursuant to ORS 467.030, then a noise measurement is to be conducted and recorded while the engine is at the speed specified in section (2) of this rule. A reading from each exhaust outlet shall be recorded at the raised engine speed.
- (4) If it is determined that the vehicle complies with[-the standards of rule] OAR 340-24-337, then, following receipt of the required fees, the vehicle emission inspector shall issue the required [c]Certificates of [c]Compliance[and inspection].
- (5) No Certificate of Compliance[or inspection] shall be issued unless the vehicle complies with all requirements of[these rules] OAR 340-24-300 through 350 and those applicable provisions of ORS[468.360 to 468.405] 467.030, 468A.350 to 468A.400,[805.350] 803.350, and 815.295 to 815.325[and 467.030].
- [(6) This rule and section (2) of rule 340-24-337 shall become effective upon further action of the Environmental Quality Commission.]

Stat. Auth.: ORS Ch. 467, 468 &[481] <u>468A</u> Hist.: DEQ 24-1984, f. 11-19-84, ef. 7-1-85; DEQ 7-1985(Temp), f. 6-16-85, ef. 7-1-85; DEQ 17-1985, f. & ef. 12-3-85

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Heavy Duty Gasoline Motor Vehicle Emission Control Test Method 340-24-315

- (1) The vehicle emission inspector is to insure that the gas analytical system is properly calibrated prior to initiating a vehicle test.
- (2) The Department_approved vehicle information data form is to be completed at the time of the motor vehicle being inspected.

(3) Vehicles having defects which make it unsafe to allow the emission test to be conducted shall be rejected from the testing area. The emission test shall not be conducted until the defects are corrected.

- ([3]4) The vehicle transmission is to be placed in neutral gear if equipped with a manual transmission, or in ["]park["] position if equipped with an automatic transmission. The hand or parking brake is to be engaged. If the brake is found to be defective, then wheel chocks are to be placed in front and behind the vehicle's tires.
- ([4]5) All vehicle accessories are to be turned off.
- ([5]6) An inspection is to be made to insure that the motor vehicle is equipped with the required functioning motor vehicle pollution control system in accordance with the criteria of[rule] OAR 340-24-325.
- (for the engine operating at idle speed, the sampling probe of the gas analytical system is to be inserted into the engine exhaust outlet.
- ([7]8) The steady state levels of the gases measured at idle speed by the gas analytical system shall be recorded. The idle speed at which the gas measurements were made shall also be recorded.
- ([8]9) The engine is to be accelerated, with no external loading applied, to a speed of between 2,200 RPM and 2,700 RPM. The engine speed is to be maintained at a constant speed within this[speed] range for sufficient time to achieve a steady-state condition whereupon the steady-state levels of the gases measured by the gas analytical system shall be recorded on the Department_ approved vehicle information form. The engine speed shall then be returned to an idle speed condition.
- ([9]10) The steady-state levels of the gases measured at idle speed by the gas analytical system shall be recorded on the Department_approved vehicle information form. The idle speed at which the gas measurements were made shall also be recorded.
- (1[0]1) If the vehicle is equipped with a multiple_exhaust system, then the steps in sections (6) through (9) of this rule are to be repeated on the other exhaust outlet(s). The readings from the exhaust outlets are to be averaged to determine a single reading for each gas measured in[each] the steps in sections (8) and (9) of this rule.

- (1[1]2) The reading from the exhaust outlet, or the average reading from the exhaust outlets obtained in[-each] the steps in sections (8) and (9) of this rule are to be compared to the standards of[-rule] OAR 340-24-335.
- (1[2]3) If the motor vehicle is capable of being operated with both gasoline and gaseous fuels, then <u>the</u> steps <u>in</u> <u>sections</u> (6) through (9) <u>of this rule</u> are to be repeated so that emission test results are obtained for both fuels.
- (1[3]4) If it is ascertained that the motor vehicle may be emitting noise in excess of the noise standards adopted pursuant to ORS 467.030, then a noise measurement is to be conducted in accordance with the test procedures adopted by the Commission or to standard methods approved in writing by the Department.
- (1[4]5) If it is determined that the motor vehicle complies with[the criteria of rule] OAR 340-24-325 and[the standards of rule] 340-24-335, and ORS 468A.350 through 468A.400, 803.350 and 815.295 through 815.325, then, following receipt of the required fees, the vehicle emission inspector shall issue the required [c]Certificate[s] of [c]Compliance[and inspection].
- [(15) The inspector shall affix any certificate of inspection issued to the lower left-hand side (normally the driver side) of the front windshield, being careful not to obscure the vehicle identification number nor to obstruct driver vision.]
- [(16) No certificate of compliance or inspection shall be issued unless the vehicle complies with all requirements of these rules and those applicable provisions of ORS 468.360 to 468.405, 803.350, 815.295 to 815.325.]
- (1[7]6) Any motor vehicle registered on less than an annual basis pursuant to ORS 803.040 need not pass more than an annual inspection to assure compliance with ORS 815.300. Such vehicles shall be issued a Certificate of Compliance in a form provided by the Department stating that the vehicle passed inspection by the Department on a certain date and was in compliance with the standards of the Commission, and having no information to the contrary, presumes the continuance of such compliance at the date of the issuance of the Certificate through four consecutive quarterly periods.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[&], 468 <u>& 468A</u> Hist.: DEQ 136, f. 6-10-77, ef. 7-1-77; DEQ 20-1981, f. 7-28-81, ef. 8-1-81; DEQ 12-1982, f. & ef. 7-21-82; DEQ 19-1983, f. 11-29-83, ef. 12-31-83

Light Duty Motor Vehicle Emission Control Test Criteria 340-24-320

(3)

- (1) No vehicle emission control test shall be considered valid if the vehicle exhaust system leaks in such a manner as to dilute the exhaust gas being sampled by the gas analytical system. For the purpose of emission control tests conducted at state facilities, except for diesel vehicles, tests will not be considered valid if the exhaust gas is diluted to such an extent that the sum of the carbon monoxide and carbon dioxide concentrations recorded for the idle speed reading from an exhaust outlet is eight percent or less, and on 1975 and newer vehicles with air injection systems seven percent or less.
- (2) No vehicle emission control test shall be considered valid if the engine idle speed either exceeds the manufacturer's idle speed specifications by over 200 RPM on [1968] 1972 and newer model vehicles[, or exceeds 1,250 RPM for any pre-1968 model vehicle].
 - No vehicle emission control test for a 1975 or newer (a) model vehicle shall be considered valid if any element following factory-installed motor vehicle the of pollution control systems have been disconnected, plugged, or otherwise made inoperative in violation of ORS 815.305(1), except that for 1975 through 19[79]80 model year vehicles the inspection shall be limited to the **[C]c**atalytic converter system and **[F]f**uel filler inlet restrictor listed below, and as noted in [section (2) of this rule] ORS 815.305(2) or as provided for by 40 CFR 85.1701-1709 (published July 1, 1991). Motor vehicle pollution control systems include, but are not necessarily limited to:
 - (A) Positive crankcase ventilation (PCV) system [,];
 - (B) Exhaust modifier system, including:
 - (i) Air injection reactor system [7];
 - (ii) Thermal reactor system{;; and
 - (iii) Catalytic converter system [.];
 - (C) Exhaust gas recirculation (EGR) systems [,];
 - (D) Evaporative control system [,];
 - (E) Spark timing system, including:
 - (i) Vacuum advance system [,]; and
 - (ii) Vacuum retard system [..]; and

- (F) Special emission control devices {. Examples}, including:
 - (i) Orifice spark advance control (OSAC) [,];
 - (ii) Speed control switch (SCS) [,];
 - (iii) Thermostatic air cleaner (TAC) [7];
 - (iv) Transmission controlled spark (TCS) [,];
 - (v) Throttle solenoid control (TSC) [;
 - (vi) Fuel filler inlet restrictor [s,];
 - (vii) Oxygen sensor [,]; and
 - (viii) Emission [C]control [C]computer.
- (b) The Department may provide alternative criteria forf this] those required under subsection (a) of this section when it can be determined that the component or an acceptable alternative is unavailable. [Relief] Such alternative criteria may be granted on the basis of the nonavailability of the original part, replacement part, or comparable alternative solution.
- (4) No vehicle emission control test for a 198[0]1 or newer model vehicle shall be considered valid if any element of the factory installed motor vehicle pollution control system has been modified or altered in such a manner so as to decrease its efficiency or effectiveness in the control of air pollution in violation of ORS 815.305(1), except as noted in [section (2) of this rule] ORS 815.305(2). For the purposes of this section, the following apply:
 - (a) The use of a non[-]original equipment aftermarket part (including a rebuilt part) as a replacement part is not considered to be a violation of ORS 815.305, if a reasonable basis exists for knowing that such use will not adversely effect emission control efficiency. The Department will maintain a listing of those parts which have been determined to adversely effect emission control efficiency;
 - (b) The use of a non[-]original equipment aftermarket part or system as an add-on, auxiliary, augmenting, or secondary part or system, is not considered to be a violation of ORS 483.825(2), if such part or system is on the exemption list of "Modifications to Motor Vehicle Emission Control Systems[-Permitted] Exempted Under California Vehicle Code Section 27156" granted by the Air Resources Board["], or is on the list maintained by the U.S. Environmental Protection Agency of "Certified to EPA Standards", or has been determined after review of testing data by the Department that there is no decrease in the efficiency or effectiveness in the control of air pollution;

- (c) Adjustments or alterations of a particular part or system parameter, if done for purposes of maintenance or repair according to the vehicle or engine manufacturer's instructions, are not considered violations of ORS 815.305.
- (5) A 198[0]1 and newer model motor vehicle which has been converted to operate on gaseous fuels shall not be considered in violation of ORS 815.305 when elements of the factory-installed motor vehicle air pollution control system are disconnected for the purpose of conversion to gaseous fuel as authorized by ORS 815.305.
- (6) [The-following applies:
 - (a) To vehicles older than the 1980 model year.]If[these] <u>a</u> vehicle[s] older than the 1981 model year is[are] now equipped with other than the original engine and factory installed vehicles pollution control systems, the vehicle for the purposes of determining test standards, shall be classified by the vehicle's original model year classification and current fuel system.
- (7) [(b) To-1980 and newer motor vehicles. These motor]A 1981 and newer vehicle[s] shall be classified by the model year and make of the vehicle as designated by the original chassis, engine, and its factory installed motor vehicle pollution control systems, or equivalent. This in no way prohibits the vehicle owner from upgrading the engine and emission control system to a more recent model year category including a diesel (compression ignition) power plant providing that all of the new factory installed pollution control system is maintained.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183[&], 468 & 468A Hist.: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 116(Temp), f. & ef. 7-27-76; DEQ 121, f. & ef. 9-3-76; DEQ 139, f. 6-30-77, ef. 7-1-77; DEQ 9-1978, f. & ef. 7-7-78; DEQ 22-1979, f. & ef. 7-5-79; DEQ 6-1980, f. & ef. 1-29-80; DEQ 18-1980, f. & ef. 6-25-80; DEQ 12-1982, f. & ef. 7-21-82; DEQ 19-1983, f. 11-29-83, ef. 12-31-83; DEQ 6-1985, f. & ef. 5-1-85; DEQ 12-1985, f. & ef. 9-30-85; DEQ 21-1988, f. & cert. ef. 9-12-88

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Heavy Duty Gasoline Motor Vehicle Emission Control Test Criteria 340-24-325

- (1) No vehicle emission control test shall be considered valid if the vehicle exhaust system leaks in such a manner as to dilute the exhaust gas being sampled by the gas analytical system. For the purpose of emission control tests conducted at state facilities, tests will not be considered valid if the exhaust gas is diluted to such an extent that the sum of the carbon monoxide and carbon dioxide concentrations recorded for the idle speed reading from an exhaust outlet is eight percent or less.
- (2) No vehicle emission control test shall be considered valid if the engine idle speed[either] exceeds the manufacturer's idle speed specifications by over 200 RPM on 197[0]2 and newer model vehicles[, or exceeds 1,000 RPM for any age model vehicle].
- (3) (a) No vehicle emission control test for a 198[0]1 or newer model vehicle shall be considered valid if any element of the following factory-installed motor vehicle pollution control systems have been disconnected, plugged, or otherwise made inoperative in violation of ORS 815.305(1), except as noted in <u>f section (2) of this</u> rule<u>f</u> ORS 815.305(2):
 - (A) Positive crankcase ventilation [,] (PVC) system;
 - (B) Exhaust modifier system [. Examples], including:
 - (i) Air injection system [,];
 - (ii) Thermal reactor system [7]; or
 - (iii) Catalytic convertor system [.];
 - (C) Exhaust gas recirculation (EGR) system [s,];
 - (D) Evaporative control system [,];
 - (E) Spark timing system [. Examples], including:
 - (i) Vacuum advance system(i) Vacuum advance system
 - (ii) Vacuum retard system [.]; or

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- (F) Special emission control devices [. Examples], including:
 - (i) Orifice spark advance control (OSAC) [,];
 - (ii) Speed control switch (SCS) [,];
 - (iii) Thermostatic air cleaner (TAC) [,];
 - (iv) Transmission controlled spark (TCS) [,];
 - (v) Throttle solenoid control (TSC) [,];
 - (vi) Fuel filler inlet restrictor [.];
 - (vii) Oxygen sensor; or
 - (viii) Emission control computer.
- (b) The Department may provide alternative criteria forf this] those required under subsection (a) of this section when it can be determined that the component or an acceptable alternative is unavailable. [-Relief] Such alternative criteria may be granted on the basis of the nonavailability of the original part, replacement part, or comparable alternative solution.
-) No vehicle emission control test conducted for a 1980 or newer model vehicle shall be considered valid if any element of the factory-installed motor vehicle pollution control system has been modified or altered in such a manner so as to decrease its efficiency or effectiveness in the control of air pollution in violation of ORS 815.305(1), except as noted in[-section (2) of this rule] ORS 815.305(2). For the purposes of this section, the following apply:
 - (a) The use of a non[-]original equipment aftermarket part (including a rebuilt part) as a replacement part is not considered to be a violation of ORS 815.305, if a reasonable basis exists for knowing that such use will not adversely [e]affect emission control efficiency. The Department will maintain a listing of those parts which have been determined to adversely effect emission control efficiency;
 - (b) The use of a non[-]original equipment aftermarket part or system as an add-on, auxiliary, augmenting, or secondary part or system, is not considered to be a violation of ORS[483.825(2)] 815.305, if such part or system is listed on the exemption list maintained by the Department;
 - (c) Adjustments or alterations of a particular part or system parameter, if done for purposes of maintenance or repair according to the vehicle or engine manufacturer's instructions, are not considered violations of ORS 815.305.
- (5) A 198[0]1 or newer model motor vehicle which has been converted to operate on gaseous fuels shall not be considered in violation of ORS 815.305 when elements of the

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(4)

factory-installed motor vehicle air pollution control system are disconnected for the purpose of conversion to gaseous fuel as authorized by ORS 815.305.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[&], 468<u>& 468A</u> Hist.: DEQ 136, f. 6-10-77, ef. 7-1-77; DEQ 22-1979, f. & ef. 7-5-79; DEQ 12-1982, f. & ef. 7-21-82; DEQ 19-1983, f. 11-29-83, ef. 12-31-83; DEQ 6-1985, f. & ef. 5-1-85; DEQ 12-1985, f. & ef. 9-30-85; DEQ 21-1988, f. & cert. ef. 9-12-88

- Light Duty Motor Vehicle Emission Control [Cutpoints or] Standards 340-24-330
- Light Duty Diesel Motor Vehicle Emission Control [Cutpoints]
 <u>Standards</u>: All 1.0% CO No HC Check.
- (2) Light Duty Gasoline Motor Vehicle Emission Control Cutpoints] Standards: Two Stroke Cycle: All - 6.5% CO - No HC Check.
- (3) Light Duty Gasoline Motor Vehicle Emission Controlf Cutpoints] Standards: Four Stroke Cycle - Passenger Cars:
 - (a) Pre 1968 Model Year:
 - (A) Four or less cylinders: All 6.5% CO 1,550
 ppm HC
 - (B) More than four cylinders: All 6.0% CO 1,250 ppm HC
 - (b) 1968 1969 Model Year:
 - (A) Four or less cylinders: All 5.5% CO 850 ppm HC
 - (B) More than four cylinders: All 5.0% CO 650 ppm HC
 - (c) 1970 1971 Model Year: All 4.5% CO 550 ppm HC
 - (d) 1972 1974 Model Year:
 - (i) 4 or less cylinders: All 4.0% CO 450 ppm HC
 - (ii) More than 4 cylinders: All 3.0% CO -350 ppm HC
 - (e) 1975 1980 Model Year:
 - (A) <u>With Catalyst</u> Equipped: All 0.5% CO 175 ppm HC
 - (B) <u>Without [Non-]</u>Catalyst[-Equipped]: All 2.0% CO - 250 ppm HC
 - (f) 1981 and Newer Model Year: All:
 - (A) At idle 0.5% CO 175 ppm HC
 - (B) At 2,500 rpm 0.5% CO 175 ppm HC

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(4)			Gasoline Motor Vehicle Emission Controlf
	-		Standards - Light Duty Trucks:
	(a)	-	GVWR or less:
		(A)	Pre 1968 Model Year:
			(i) Four or less cylinders: All - 6.5% CO -
			<pre>1,550 ppm HC (ii) More than four cylinders: All - 6.5% CO</pre>
			-1,250 ppm HC
		(B)	1968 - 1969 Model Year:
		(-)	(i) Four or less cylinders: All - 5.5% CO -
			850 ppm HC
			(ii) More than four cylinders: All - 5.0% CO
			- 650 ppm HC
		(C)	1970 - 1971 Model Year: All - 4.5% CO - 550 ppm
		<i>i</i> = 1	HC
		(D)	1972 - 1974 Model Year:
			(i) Four or less cylinders: All - 4.0% CO -
			450 ppm HC (ii) More than four cylinders: All - 3.0% CO
			- 350 ppm HC
		(E)	1975 - 1980 Model Year:
		(-/	(i) With Catalyst [Equipped]: All - 0.5% CO
			- 175 ppm HC
			(ii) <u>Without [Non-]</u> Catalyst [Equipped]: All -
			2.0% CO - 250 ppm HC
		(F)	1981 and Newer Model Year: All:
			(i) At idle -0.5% CO -175 ppm HC
	(h)	6 001	(ii) At 2,500 rpm - 0.5% CO - 175 ppm HC
	(b)	(A)	to 8,500 GVWR: Pre 1968 Model Year: All - 6.0% CO - 1,250 ppm HC
		(B)	1968 - 1969 Model Year: All - 5.0% CO - 650 ppm
		(2)	HC
		(C)	1970 - 1971 Model Year: All - 4.5% CO - 550 ppm
		•••	HC
		(D)	1972 - 1974 Model Year: All - 3.0% CO - 350 ppm
			HC
		(E)	1975 - 1978 Model Year: All - 2.0% CO - 250 ppm
		(-)	HC
		(F)	1979 - 1980 Model Year:
			<pre>(i) <u>With Catalyst{ Equipped</u>: All - 0.5% CO -175 ppm HC</pre>
			(ii) <u>Without [Non-]</u> Catalyst [Equipped] : All -
			$\frac{11}{2.0\% \text{ CO} - 250 \text{ ppm HC}}$
		(G)	1981 and Newer: All:
			(i) At idle - 0.5% CO - 175 ppm HC
			(ii) At 2,500 rpm - 0.5% CO - 175 ppm HC

- (5) An enforcement tolerance of 0.5% carbon monoxide and 50 ppm hydrocarbon will be added to the<u>{ above cutpoints} standards</u> in sections (1) through (4) of this rule.
- (6) There shall be no visible emission during the steady-state unloaded and raised rpm engine idle portions of the emission test from either the vehicle's exhaust system or the engine crankcase. In the case of diesel engines and two-stroke cycle engines, the allowable visible emission shall be no greater than 20% opacity.
- (7) The Director may establish specific separate standards, differing from those listed in sections (1)[, (2), (3), (4), (5) and] through (6) of this rule for vehicle classes which are determined to present prohibitive inspection problems using the listed standards.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 116(Temp), f. & ef. 7-27-76; DEQ 121, f. & ef. 9-3-76; DEQ 139, f. 6-30-77, ef. 7-1-77; DEQ 9-1978, f. & ef. 7-7-78; DEQ 22-1979, f. & ef. 7-5-79; DEQ 18-1980, f. & ef. 6-25-80; DEQ 15-1981(Temp), f. & ef. 5-6-81; DEQ 20-1981, f. 7-28-81, ef. 8-1-81; DEQ 18-1986, f. 9-18-86, ef. 10-1-86; DEQ 21-1988, f. & cert. ef. 9-12-88

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Heavy-Duty Gasoline Motor Vehicle Emission Control Emission Standards

340-24-335

- (1) Carbon monoxide idle emission values not to be exceeded: All Vehicles:
 - (a) Pre-1970: Base Standard[%] 6.0% Enforcement Tolerance - 0.5.
 - (b) 1970 through 1973: Base Standard $\{-\$\}$ 4.0 $\frac{8}{2}$ Enforcement Tolerance 1.0.
 - (c) 1974 through 1978: Base Standard [%] 3.0% -Enforcement Tolerance - 1.0.

 - (e) 1985 and { later] newer with catalyst: Base Standard { %]
 - 0.5% Enforcement Tolerance 0.5.

(2)	Carbon Monoxide nominal 2,500 rpm emission values not to be					
	exceeded: All Vehicles:					
	(a) Pre-1970: Base Standard - 3.0% - Enforcement Tolerance - 1.0.					
	(b) 1970 and [later] newer without catalyst with					
	carburetor: Base Standard [%] - 2.0 <u>%</u> - Enforcement					
	Tolerance - 1.0.					
	(c) <u>1970 and newer without catalyst with [F]f</u> ue]					
	<pre>injectfedfion: No Check. (d) 1985 andf laterf newer with catalyst: Base Standardf [-%]</pre>					
	- 0.5% - Enforcement Tolerance - 0.5.					
(3)	Hydrocarbon idle emission values not to be exceeded: All					
	Vehicles:					
	(a) Pre-1970: Base Standard PPM - 700 - Enforcement					
	Tolerance - 200. (b) 1970 through 1973: Base Standard PPM - 500 -					
	(b) 1970 through 1973: Base Standard PPM - 500 - Enforcement Tolerance - 200.					
	(c) 1974 through 1978: Base Standard PPM - 300 -					
	Enforcement Tolerance - 200.					
	(d) 1979 and [later] newer without catalyst: Base Standard					
	PPM 250 - Enforcement Tolerance - 100.					
	 (e) 1985 and [later] newer with catalyst: Base Standard PPM 175 - Enforcement Tolerance - 50. 					
(4)	Hydrocarbon nominal 2,500 RPM emission values not be					
(-/	exceeded: 1985 and newer with catalyst: Base Standard PPM 175					
	- Enforcement Tolerance - PPM 50.					
(5)	There shall be no visible emission during the steady-state					
	unloaded engine idle and raised rpm portion of the emission test from either the vehicle's exhaust system or the engine					
	crankcase.					
(6)	The Director may establish specific separate standards,					
	differing from those listed in sections (1) [,-(2), (3), and]					
	through (4) of this rule for vehicle classes which are					
	determined to present prohibitive inspection problems using					
	the listed standard.					
	[NOTE: This rule is included in the State of Oregon Clean Air					
<u>Act I</u>	Implementation Plan as adopted by the Environmental Quality					
Commi	ssion under OAR 340-20-047.]					
	Auth.: ORS Ch. ORS 468 <u>& 468A</u> : DEQ 136, f. 6-10-77, ef. 7-1-77; DEQ 9-1978, f. & ef.					
7-7-7	28: DEO 22-1979. f. & ef. 7-5-79: DEO 18-1980. f. & ef.					
6-25-	8; DEQ 22-1979, f. & ef. 7-5-79; DEQ 18-1980, f. & ef. 80; DEQ 15-1981(Temp), f. & ef. 5-6-81; DEQ 20-1981, f.					
7-28-	81, ef. 8-1-81; DEQ 18-1986, f. 9-18-86, ef. 10-1-86					
Printe	d by the Department of Environmental Quality: December 30, 1992 Page 25					

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.

Motor Vehicle Propulsion Exhaust Noise Standards 340-24-337

(1) Light duty motor vehicle propulsion exhaust noise levels not to be exceeded as measured at no less than 20 inches from any opening to the atmosphere downstream from the exhaust ports of the motor vehicle engine: Vehicle Type Maximum Allowable Noise Level

1972 - 1974 Ferrari GTB, GTC and GTS with 4390 cc engine 102 dBA **1973 - 1974** Ford De Tomaso 101 dBA 101 dBA 1972 - 1973 Pontiac Firebird TransAM 93 dBA <u>All Other Rear and Mid Engine Vehicles</u> 95 dBA

(2) Motorcycle propulsion exhaust noise levels not to be exceeded as measured at no less than 20 inches from any opening to the atmosphere downstream from the exhaust ports of the motorcycle engine: Model Year

Maximum Allowable Noise Level

Pre-1976 102 dBA 1976 and [later] newer 99 dBA

The Director may establish specific separate standards, (3) differing from those listed in sections (1) and (2) of this rule, for vehicle classes which are determined to present prohibitive inspection problems using the listed standard.

Stat. Auth.: ORS Ch. 467, 468 & 481] 468A Hist.: DEQ 23-1984, f. 11-19-84, ef. 4-1-85; DEQ 24-1984, f. 11-19-84, ef. 7-1-85; DEQ 6-1985, f. & ef. 5-1-85

Criteria for Qualifications of Persons Eligible to Inspect Motor Vehicles and Motor Vehicle Pollution Control Systems and Execute Certificates

340-24-340

- Three separate classes of licenses are established [by these (1)rules] as follows:
 - Motor vehicle fleet operations; (a)

(b) Fleet operation vehicle emission inspector;

(c) State_employed vehicle emission inspector.

- (2) Application for a license must be completed on a form provided by the Department.
- (3) (a) Each motor vehicle fleet operation license shall be valid through December 31 of each year unless revoked, suspended, or returned to the Department;
 - (b) Each vehicle emission inspector license shall be valid for two years from the last day of the month of issue,] through December 31 of every other year unless revoked, suspended, or returned to the Department.
- (4) No license shall be issued until the applicant has fulfilled all requirements and paid the required fee.
- (5) No license shall be transferable.
- (6) Each license may be renewed upon application and receipt of renewal fee if the application for renewal is made within the 30-day period prior to the expiration date and the applicant complies with all other licensing requirements.
- (7) A license may be suspended, revoked, or not renewed if the licensee has violated [these rules] this Division or ORS 468.360 to 468.405] 468A.350 to 468A.400, 815.295 to 815.325.
- A fleet operation vehicle emission inspector license shall be (8) valid only for inspection of, and execution of certificates motor vehicle pollution control systems and motor for, vehicles of the motor vehicle fleet operation by which the inspector is employed on a full time basis, except: A fleet vehicle emission inspector employed by а operation governmental agency may be authorized by the Department to perform inspections and execute Certificates of Compliance for vehicles of other governmental agencies that have contracted with that agency for that service and that contract having the approval of the Director.
- (9) To initially receive or renew a license as a vehicle emission inspector, the applicant must:
 - (a) Be an employee of the Vehicle Inspection Program of the Department; or
 - (b) Be an employee of a licensed motor vehicle fleet operation;
 - (c) Complete application;
 - (d) Satisfactorily complete a training program conducted by the Department. Only persons employed by the Department or by a motor vehicle fleet operation shall be eligible to participate in the training program unless otherwise approved by the Director. The duration of the training program for persons employed by a motor vehicle fleet operation shall not exceed 24 hours;

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- (e) At the completion of this training program, satisfactorily complete an examination pertaining to the inspection program requirements. This examination shall be prepared, conducted, and graded by the Department.
- (10) To be licensed as a motor vehicle fleet operation, the applicant must:
 - (a) Be the owner of 100 or more Oregon registered in-use motor vehicles, or 50 or more [publicly] governmentowned vehicles registered pursuant to ORS 805.040;
 - (b) Be equipped with an exhaust gas analyzer complying with criteria established in <u>{rule} OAR</u> 340-24-350;
 - (c) Be equipped with a sound level meter conforming to "Requirements for Sound Measuring Instruments and Personnel" (NPCS-2) manual, revised September 15, 1974, of this Department.
- (11) No person licensed as a motor vehicle fleet operation shall advertise or represent himself as being licensed to inspect motor vehicles to determine compliance with the criteria and standards of <u>frules</u> <u>JOAR</u> 340-24-320 and 340-24-330.

[**Publication:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[&], 468 <u>& 468A</u> Hist.: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 136, f. 6-10-77, ef. 7-1-77; DEQ 3-1978, f. 3-1-78, ef. 4-1-78; DEQ 9-1978, f. & ef. 7-7-78; DEQ 14-1978, f. & ef. 10-3-78; DEQ 6-1980, f. & ef. 1-29-80; DEQ 12-1982, f. & ef. 7-21-82; DEQ 19-1983, f. 11-29-83, ef. 12-31-83

Gas Analytical System Licensing Criteria 340-24-350

(1) To be licensed, an exhaust gas analyzer must:
 (a) Conform substantially with [either: _ _]

- (B) The technical specifications contained in the document "Performance Criteria, Design Guidelines, and Accreditation Procedures for Hydrocarbon (HC) and Carbon Monoxide (CO) Analyzers Required in California Official Motor Vehicle Pollution Control Stations", issued by the Bureau of Automotive Repair, Department of Consumer Affairs, State of California, and on file in the office of the Vehicle Inspection Program of the Department. Evidence that an instrument model is approved by the California Bureau of Automotive Repair will suffice to show conformance with this technical specification, Or
- (C) If a gas analytical system is purchased after January 1, 1982,] the technical specifications contained in the document "The California Bureau of Automotive Repair Exhaust Gas Analyzer Specification - 1979" on file in the office of the Vehicle Inspection Program of the Department[7].
- [(D) Notwithstanding-any of the above certifications, no license shall be issued or renewed for any battery powered exhaust gas analytical system after December 31, 1984.
- (E) Not withstanding any of the above certification, no license shall be issued or renewed for any exhaust gas analyzer which does not conform to subsection (C) after December 31, 1989.]
- (b) Be owned by the licensed motor vehicle fleet operation or the Department;
- Be span gas calibrated and leak checked within a 14-(C) calendar_day period prior to the test date by the licensed inspector. The calibration and leak check is to be performed following the analyzer manufacturer's specified procedures. The manufacturer's operation manual and calibration and leak check procedures are defined as an integral part of the analyzer, and shall be kept with the analyzer at all times. The date of calibration and leak check and the inspector's initials are to be recorded on a form provided by the Department for verification. Prior to any day of testing for the purposes of issuing a Certificate of Compliance, the analyzer shall be mechanically checked and corrected for zero and span drift once a day prior to performing the day's first vehicle exhaust gas inspection.

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- (2) Application for a license must be completed on a form provided by the Department.
- (3) Each license issued for an exhaust gas analyzer shall be valid through December 31 of each year, unless returned to the Department or revoked.
- (4) A license for an exhaust gas analyzer system shall be renewed upon submission of a statement by the motor vehicle fleet operation that all conditions pertaining to the original license issuance are still valid and that the unit has been gas calibrated and its proper operation verified within the last 30 days by a vehicle emission inspector in their employment.
- (5) Grounds for revocation of a license issued for an exhaust gas analyzer system include the following:
 - (a) The unit has been altered, damaged, or modified so as to no longer conform with the specifications of subsection (1)(a) of this rule;
 - (b) The unit is no longer owned by the motor vehicle fleet operation to which the license was issued;
 - (c) The Department verifies that a Certificate of Compliance has been issued to a vehicle which has been emission tested by an analyzer that has not met the requirements of subsection (1)(c) of this rule.
- (6) No license shall be transferable.
- (7) No license shall be issued until all requirements of section(1) of this rule are fulfilled and required fees paid.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[{][Publication: The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183 [&], 468 & 468A

Hist.: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 136, f. 6-10-77, ef. 7-1-77; DEQ 9-1978, f. & ef. 7-7-78; DEQ 14-1978, f. & ef. 10-3-78; DEQ 6-1980, f. & ef. 1-29-80; DEQ 20-1981, f. 7-28-81, ef. 8-1-81; DEQ 19-1983, f. 11-29-83, ef. 12-31-83; DEQ 6-1985, f. & ef. 5-1-85; DEQ 21-1988, f. & cert. ef. 9-12-88

DIVISION 25

SPECIFIC INDUSTRIAL STANDARDS {CONSTRUCTION AND OPERATION OF WIGWAM WASTE BURNERS}

<u>Construction and Operation of</u> <u>Wigwam Waste Burners</u>

[ED. NOTE: Administrative Order DEQ 37 repealed applicable portions of SA 22, filed 6-7-68.]

Definitions

340-25-005 As used in[these-rules, unless required otherwise by context] OAR 340-25-005 through 340-25-025:

- (1) "Continuous-flow conveying methods" means methods which transport materials at uniform rates of flow, or at rates generated by the production process.
- (2) "Modified wigwam waste burner" means a device having the general features of a wigwam waste burner, but with improved combustion air controls and other improvements installed in accordance with design criteria approved by the Department.
- (3) "Opacity" means the degree to which an emission reduces transmission of light or obscures the view of an object in the background.
- (4) "Wigwam waste burner" means a burner which consists of a single combustion chamber, has the general features of a truncated cone, and is used for incineration of wastes.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Statement of Policy

340-25-010 Recent technological and economic developments have enhanced the degree to which wood waste residues currently being disposed of in wigwam waste burners may be utilized or otherwise disposed of in ways not damaging to the environment. While recognizing that complete utilization of wood wastes is not presently possible in all instances, consistent with the economic and geographical conditions in Oregon, it is hereby declared to be the policy of the Environmental Quality Commission to: (1) Encourage the complete utilization of wood waste residues.

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- (2) Phase out, wherever reasonably practicable, all disposal of wood waste residues by incineration.
- (3) Require the modification of all wigwam waste burners to minimize air contaminant emissions.
- (4) Require effective monitoring and reporting of wigwam waste burner operating conditions.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Authorization to Operate a Wigwam Burner 340-25-015

- (1) Operation of wigwam waste burners other than modified wigwam waste burners is prohibited without approval of the Department of Environmental Quality.
- (2) Persons seeking authorization to modify a wigwam waste burner or establish a new wigwam waste burner shall request authorization by submitting a Notice of Construction and submitting plans in accordance with OAR 340-20-025 and 340-20-030.
- (3) Authorization to establish a modified waste burner installation shall not be approved unless it is demonstrated to the Department that:
 - (a) No feasible alternative to incineration of wood waste residues exists. In demonstrating this, the applicant shall provide a statement of the relative technical and economic feasibility of alternatives, including but not limited to: utilization, off-site disposal and incineration in a boiler or incinerator other than a wigwam waste burner;
 - (b) The modified wigwam waste burner facility is to be constructed and operated in accordance with design criteria approved by the Department, and the emission standards set forth in OAR 340-25-020.
- (4) Authorization for establishment of a new modified wigwam waste burner in conjunction with the establishment of a new industrial facility or significant expansion of an existing facility shall not be granted without approval of the Department of Environmental Quality.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Emission and Operation Standards for Wigwam Waste Burners 340-25-020

- (1) No person shall cause, suffer, allow, or permit the emission of air contaminants into the atmosphere from any wigwam waste burner for a period or periods aggregating more than three (3) minutes in any one hour which is equal to or greater than 20% opacity.
- (2) Resultant emissions notwithstanding, no person shall use a wigwam waste burner for the incineration of other than production process wood wastes. Such wood wastes shall be transported to the burner by continuous-flow conveying methods.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Monitoring and Reporting

340-25-025

- (1) A thermocouple and recording pyrometer or other approved temperature measurement and recording devices shall be installed and maintained on every modified wigwam waste burner.
- (2) Exit gas temperature shall be recorded continuously using the installed pyrometer at all times when the burner is in operation.
- (3) Records of temperature and burner operation, or summaries thereof, shall be submitted at such frequency as the Department may prescribe.
- (4) In addition to temperature monitoring as prescribed above, in accordance with OAR 340-20-035 and 340-20-040, the Department may require installation of visible emissions monitoring devices and subsequent reporting of data

DIVISION 25

SPECIFIC INDUSTRIAL STANDARDS {CONSTRUCTION AND OPERATION OF WIGWAM WASTE BURNERS}

<u>Construction and Operation of</u> <u>Wiqwam Waste Burners</u>

[ED. NOTE: Administrative Order DEQ 37 repealed applicable portions of SA 22, filed 6-7-68.]

Definitions

340-25-005 As used in these rules, unless required otherwise by context OAR 340-25-005 through 340-25-025:

- (1) "Continuous-flow conveying methods" means methods which transport materials at uniform rates of flow, or at rates generated by the production process.
- (2) "Modified wigwam waste burner" means a device having the general features of a wigwam waste burner, but with improved combustion air controls and other improvements installed in accordance with design criteria approved by the Department.
- (3) "Opacity" means the degree to which an emission reduces transmission of light or obscures the view of an object in the background.
- (4) "Wigwam waste burner" means a burner which consists of a single combustion chamber, has the general features of a truncated cone, and is used for incineration of wastes.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Statement of Policy

340-25-010 Recent technological and economic developments have enhanced the degree to which wood waste residues currently being disposed of in wigwam waste burners may be utilized or otherwise disposed of in ways not damaging to the environment. While recognizing that complete utilization of wood wastes is not presently possible in all instances, consistent with the economic and geographical conditions in Oregon, it is hereby declared to be the policy of the Environmental Quality Commission to: (1) Encourage the complete utilization of wood waste residues.

CHAPTER 340, DIVISION 25 - DEPARTMENT OF ENVIRONMENTAL QUALITY

- (2) Phase out, wherever reasonably practicable, all disposal of wood waste residues by incineration.
- (3) Require the modification of all wigwam waste burners to minimize air contaminant emissions.
- (4) Require effective monitoring and reporting of wigwam waste burner operating conditions.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

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- (1) Operation of wigwam waste burners other than modified wigwam waste burners is prohibited without approval of the Department of Environmental Quality.
- (2) Persons seeking authorization to modify a wigwam waste burner or establish a new wigwam waste burner shall request authorization by submitting a Notice of Construction and submitting plans in accordance with OAR 340-20-025 and 340-20-030.
- (3) Authorization to establish a modified waste burner installation shall not be approved unless it is demonstrated to the Department that:
 - (a) No feasible alternative to incineration of wood waste residues exists. In demonstrating this, the applicant shall provide a statement of the relative technical and economic feasibility of alternatives, including but not limited to: utilization, off-site disposal and incineration in a boiler or incinerator other than a wigwam waste burner;
 - (b) The modified wigwam waste burner facility is to be constructed and operated in accordance with design criteria approved by the Department, and the emission standards set forth in OAR 340-25-020.
- (4) Authorization for establishment of a new modified wigwam waste burner in conjunction with the establishment of a new industrial facility or significant expansion of an existing facility shall not be granted without approval of the Department of Environmental Quality.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Emission and Operation Standards for Wigwam Waste Burners 340-25-020

- (1) No person shall cause, suffer, allow, or permit the emission of air contaminants into the atmosphere from any wigwam waste burner for a period or periods aggregating more than three (3) minutes in any one hour which is equal to or greater than 20% opacity.
- (2) Resultant emissions notwithstanding, no person shall use a wigwam waste burner for the incineration of other than production process wood wastes. Such wood wastes shall be transported to the burner by continuous-flow conveying methods.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Monitoring and Reporting

340-25-025

- (1) A thermocouple and recording pyrometer or other approved temperature measurement and recording devices shall be installed and maintained on every modified wigwam waste burner.
- (2) Exit gas temperature shall be recorded continuously using the installed pyrometer at all times when the burner is in operation.
- (3) Records of temperature and burner operation, or summaries thereof, shall be submitted at such frequency as the Department may prescribe.
- (4) In addition to temperature monitoring as prescribed above, in accordance with OAR 340-20-035 and 340-20-040, the Department may require installation of visible emissions monitoring devices and subsequent reporting of data therefrom.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Existing Administrative Agency Orders

340-25-0[80]27

- (1) The provisions of OAR 340-25-005 through 340-25-020 and OAR 340-25-025(1) [-of this-rule] are in addition thereto and do not modify, amend, repeal, alter, postpone, or in any other manner affect any specific existing agency orders directed against specific parties or persons to abate air pollution.
- (2) The provisions of OAR 340-25-025(2) {-of this rule} shall not be made applicable nor extend in any manner to any specific existing agency orders directed against specific parties or persons to abate air pollution.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch.<u>468 & 468A</u> Hist.: SA 30 f. 6-7-68, ef. 8-1-68

Reduction of Animal Matter

[{ED. NOTE: Effective July 1, 1969, the Sanitary Authority was replaced by the Department of Environmental Quality, consisting of a Department and of a Commission, known as the Environmental Quality Commission. Where Sanitary Authority is presently used in these regulations, it should be noted by readers of these rules that Department of Environmental Quality should be substituted unless the context or statutes clearly require the use of Environmental Quality Commission.]

Control Facilities Required

340-25-055

- (1) A person shall not operate or use any article, machine, equipment or other contrivance for the reduction of animal matter unless all gases, vapors and gas-entrained effluents from such an article, machine, equipment or other contrivance are:
 - Incinerated at temperatures of not less than 1200 degrees Fahrenheit for a period of not less than 0.3 seconds; or
 - (b) Processed in such a manner determined by the Sanitary Authority] Department to be equally, or more, effective for the purpose of air pollution control than section (1) of this rule.
- (2) A person incinerating or processing gases, vapors or gas-entrained effluents pursuant to this rule shall provide, properly install and maintain in calibration, in

good working order and in operation, devices as specified by the <u>E-Sanitary Authority</u> <u>Department</u>, for indicating temperature, pressure or other operating conditions.

- (3) For the purpose of <u>{this rule}OAR 340-25-055 through 340-25-075</u>, "reduction" is defined as any heated process, including rendering, cooking, drying, dehydrating, digesting, evaporating and protein concentrating.
- (4) The provisions of <u>[this rule]OAR 340-25-055 through 340-25-075</u> shall not apply to any article, machine, equipment, or other contrivance used exclusively for the processing of food for human consumption.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: SA 30, f. 6-7-68, ef. 8-1-68

Monitoring of Reduction Facilities

340-25-060

- (1) (a) When requested by the<u>f Sanitary Authority] Department</u> for the purpose of formulating plans in conjunction with industries who are or may be sources of air pollution, and to investigate sources of air pollution, monitoring data shall be submitted for plant operational periods and shall include:
 - (A) Continuous or at least hourly influent and effluent temperature readings on the condenser;
 - (B) Continuous or at least hourly temperature readings on the after-burner;
 - (C) Estimated weights of finished products processed in pounds per hour;
 - (D) Hours of operation per day; and
 - (E) A narrative description to accurately portray control practices, including the house-keeping measures employed.
 - (b) When requested by the plant manager any information relating to processing or production shall be kept confidential by the<u>[Sanitary Authority] Department</u> and shall not be disclosed or made available to competitors or their representatives in the rendering industry.
- (2) Whenever a breakdown of operating facilities occurs or unusual loads or conditions are encountered that cause or may cause release of excessive and malodorous gases or vapors, the<u>[Sanitary Authority] Department</u> shall be immediately notified.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: SA 30, f. 6-7-68, ef. 8-1-68

Housekeeping of Plant and Plant Area

340-25-065 The plant facilities and premises are to be kept clean and free of accumulated raw material, products, and waste materials. The methods used for housekeeping shall include, but not be limited to:

- (1) A washdown at least once each working day, of equipment, facilities and building interiors that come in contact with raw or partially processed material, with steam or hot water and detergent or equivalent additive.
- (2) All solid wastes shall be stored in covered containers and disposed of daily in an incinerator or fill, approved by the<u>[Sanitary Authority] Department;</u> or by contract with a company or municipal department providing such service.
- (3) Disposal of liquid and liquid-borne waste in a manner approved by the<u>f Sanitary-Authority] Department</u>.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: SA 30, f. 6-7-68, ef. 8-1-68

Application

340-25-070[This rule] OAR 340-25-055 through 340-25-080 shall apply in all areas of the state which are within city limits or within two miles of the boundaries of incorporated cities.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: SA 30, f. 6-7-68, ef. 8-1-68

Effective Date

340-25-075

[(1) These regulations shall be effective August 1, 1968.
(2) The Sanitary Authority will consider on for the time of compliance with these regulations up to March 1, 1969, for plants who encounter special problems due to engineering or technical design difficulties or delay in the preparation and receipt of engineering plans, upon written application being submitted to the Sanitary Authority, prior to August 1, 1968, requesting an extension of time and the reasons therefor.

Stat. Auth.: ORS Ch.
Hist.:][SA 30, f. 6-7-68, ef. 8-1-68; Repealed]

Existing Administrative Agency Orders 340-25-080 [Renumbered to 340-25-027]

Hot Mix Asphalt Plants

[ED. NOTE: Administrative Order DEQ 49 repealed previous OAR 340-25-105 through 340-25-130 (consisting of SA 32, filed 8-5-68, effective 4-1-69).]

Definitions

340-25-105 As used in OAR 340-25-105 through 340-25-125[, unless otherwise required by context]:

- (1) "Hot mix asphalt plants" means those facilities and equipment which convey or batch load proportioned quantities of cold aggregate to a drier, and heat, dry, screen, classify, measure, and mix the aggregate with asphalt for purposes of paving, construction, industrial, residential, or commercial use.
- (2) "Collection efficiency" means the overall performance of the air cleaning device in terms of ratio of material collected to total input to the collector unless specific size fractions of the contaminant are stated or required.
- (3) "Process weight by hour" means the total weight of all materials introduced into any specific process which process may cause any discharge into the atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. The "process weight per hour" will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle.
- (4) "Dusts" means minute solid particles released into the air by natural forces or by mechanical processes such as crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, or sweeping.
- (5) "Portable hot mix asphalt plants" means those hot mix asphalt plants which are designed to be dismantled and are transported from one job site to another job site.
- (6) "Particulate matter" means any matter except uncombined water, which exists as a liquid or solid at standard conditions.
- (7) "Special control areas" means [-for the purpose of this rule] any location within:
 - Multnomah, Clackamas, Columbia, Washington, Yamhill, Polk, Benton, Marion, Linn, and Lane counties;
 - (b) The Umpqua Basin as defined in OAR 340-21-010(2);
 - (c) The Rogue Basin as defined in OAR 340-21-010(3);
 - (d) Any incorporated city or within six (6) miles of the city limits of said incorporated city;

- (e) Any area of the state within one (1) mile of any structure or building used for a residence;
- (f) Any area of the state within two (2) miles straight line distance or air miles of any paved public road, highway, or freeway having a total of two (2) or more traffic lanes.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 49, f. 2-9-73, ef. 3-1-73

Control Facilities Required 340-25-110

- (1) No person shall operate any hot mix asphalt plant, either portable or stationary, located within any area of the state outside special control areas unless all dusts and gaseous effluents generated by the plant are subjected to air cleaning device or devices having a particulate collection efficiency of at least 80% by weight.
- (2) No person shall operate any hot mix asphalt plant, either portable or stationary located within any special control area of the state without installing and operating systems or processes for the control of particulate emissions so as to comply with the emission limits established by the process weight table, **Table 1**, attached herewith and by reference made a part of this rule and the emission limitations in OAR 340-21-015(2) and (3), and 340-21-030.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 49, f. 2-9-73, ef. 3-1-73

Other Established Air Quality Limitations

340-25-115 The emission limits established under [these rules] OAR 340-25-105 through 340-25-125 are in addition to visible emission and other ambient air standards, established or to be established by the Environmental Quality Commission unless otherwise provided by rule or regulation.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 49, f. 2-9-73, ef. 3-1-73

Portable Hot Mix Asphalt Plants

340-25-120 Portable hot mix asphalt plants may apply for air contaminant discharge permits within the area of Department jurisdiction without indicating specific site locations. As a condition of said permit, the permittee will be required to obtain approval from the Department for the air pollution controls to be installed at each site location or set-up at least ten (10) days prior to operating at each site location or set-up.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 49, f. 2-9-73, ef. 3-1-73; DEQ 5-1983, f. & ef. 4-18-83

Ancillary Sources of Emission - Housekeeping of Plant Facilities 340-25-125

- (1) Ancillary air contamination sources from the plant and its facilities which emit air contaminants into the atmosphere such as, but not limited to, the drier openings, screening and classifying system, hot rock elevator, bins, hoppers, and pug mill mixer, shall be controlled at all times so as to maintain the highest possible level of air quality and the lowest possible discharge of air contaminants.
- (2) The handling of aggregate and traffic shall be conducted at all times so as to minimize emissions into the atmosphere.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 49, f. 2-9-73, ef. 3-1-73

Kraft Pulp Mills

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[ED. NOTE: Administrative Order DEQ 50 repealed previous OAR 340-25-155 through 340-25-195 (consisting of SA 38, filed 4-4-69).]

Definitions

340-25-150 As used in { these regulations, unless otherwise		
required by	-context] 340-25-150 through 340-25-205:	
$\frac{1}{1}(\frac{1}{4})$	"BLS" means Black Liquor Solids, dry weight.	
$\frac{(1)}{(2)}$	"Continual Monitoring" means sampling and analysis,	
	in a timed sequence, using techniques which will	
	adequately reflect actual emission levels or	
	concentrations on an ongoing basis.	
[(16)](3)	"Continuous monitoring" means instrumental sampling	
	of a gas stream on a continuous basis, excluding	
	periods of calibration.	
[(17)](4)	"Daily Arithmetic Average" means the average	
	concentration over the twenty-four hour period in a	
	calendar day, or Department approved equivalent	
	period, as determined by continuous monitoring	
	equipment or reference method testing. Determinations	
	based on EPA reference methods or equivalent methods	
	in accordance with the Department Source	
,	[Test]Sampling Manual consist of three (3) separate	
	consecutive runs having a minimum sampling time of	
	sixty (60) minutes each and a maximum sampling time	
	of eight (8) hours each. The three values for	
	concentration (ppm or grains/dscf) are averaged and	
	expressed as the daily arithmetic average which is	
	used to determine compliance with process weight	
	limitations, grain loading or volumetric	
	concentration limitations and to determine daily	
	emission rate.	
[(2)](5)	"Department" means the Department of Environmental	
	Quality.	
[(3)](6)	"Emission" means a release into the atmosphere of air	
	contaminants.	
[(5)](7)	"Kraft Mill" or "Mill" means any industrial operation	
	which uses for a cooking liquor an alkaline sulfide	
	solution containing sodium hydroxide and sodium	
	sulfide in its pulping process.	
[(6)](8)	"Lime Kiln" means any production device in which	
· · · ·	calcium carbonate is thermally converted to calcium	
	oxide.	
[(7)](9)	"Non-Condensibles" mean [s] gases and vapors,	
	contaminated with TRS compounds, from the digestion	
	and multiple-effect evaporation processes of a mill.	
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- (8) (10) "Other Sources" mean(s) sources of TRS emissions in a kraft mill other than recovery furnaces and lime kilns, including but not limited to: (a) Vents from knotters, brown stock washing systems,
 - evaporators, blow tanks, blow heat accumulators, black liquor storage tanks, black liquor oxidation system, pre-steaming vessels, tall oil recovery operations; and
 - (b) Any vent which is shown to contribute to an identified nuisance condition.
- [(9)](11) "Particulate Matter" means all solid or liquid material, other than uncombined water, emitted to the ambient air as measured by EPA Method 5 or an equivalent test method in accordance with the Department Source [Test]Sampling Manual. Particulate matter emission determinations by EPA Method 5 shall use water as the cleanup solvent instead of acetone, and consist of the average of three (3) separate consecutive runs having a minimum sampling time of 60 minutes each, a maximum sampling time of eight (8) hours each, and a minimum sampling volume of 31.8 dscf each.
- [(10)](12) "Parts Per Million (ppm)" means parts of a contaminant per million parts of gas by volume on a dry-gas basis (1 ppm equals 0.0001% by volume).
- [(11)](13) "Production" means the daily amount of air-dried unbleached pulp, or equivalent, produced during the 24-hour period each calendar day, or Department approved equivalent period, and expressed in air-dried metric tons (admt) per day. The corresponding English unit is air-dried tons (adt) per day.
- [(12)](14) "Recovery Furnace" means the combustion device in which dissolved wood solids are incinerated and pulping chemicals recovered from the molten smelt. For[these regulations] OAR 340-25-150 through 340-25-205, and where present, this term shall include the direct contact evaporator.
- (13) (15) "Significant Upgrading of Pollution Control Equipment" means a modification or a rebuild of an existing pollution control device for which a capital expenditure of 50 percent or more of the replacement cost of the existing device is required, other than ongoing routine maintenance.
- f(18)](16) "Smelt dissolving tank vent" means the vent serving the vessel used to dissolve the molten smelt produced by the recovery furnace.

- "Standard Dry Cubic Meter" means the amount of gas $\frac{(14)}{(17)}$ that would occupy a volume of one cubic meter, if the gas were free of uncombined water, at a temperature of 20° C. (68° F.) and a pressure of 760 mm of [M]mercury (29.92 inches of [M]mercury). The corresponding English unit is standard dry cubic foot. When applied to recovery furnace gases "standard dry cubic meter" requires adjustment of the gas volume to that which would result in a concentration of 8% oxygen if the oxygen concentration exceeds 8%. When applied to lime kiln gases "standard dry cubic meter" requires adjustment of the gas volume to that which would result in a concentration of 10% oxygen if the oxygen concentration exceeds 10%. The mill shall demonstrate that oxygen concentrations are below noted values or furnish oxygen levels and corrected pollutant data.
- $\frac{(15)}{(18)}$ "Total Reduced Sulfur (TRS)" means the sum of the sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, and any other organic sulfides present expressed as hydrogen sulfide (H₂S).

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77; DEQ 2-1990, f. & cert. ef. 1-24-90

Statement of Policy

340-25-155 Recent technological developments have enhanced the degree of malodorous emission control possible for the kraft pulping process. While recognizing that complete malodorous and particulate emission control is not presently possible, consistent with the meteorological and geographical conditions in Oregon, it is hereby declared to be the policy of the Department to:

- (1) Require, in accordance with a specific program and time table for all sources at each operating mill, the highest and best practicable treatment and control of atmospheric emissions from kraft mills through the utilization of technically feasible equipment, devices, and procedures. Consideration will be given to the economic life of equipment, which when installed, complied with the highest and best practicable treatment requirement.
- (2) Require degrees and methods of treatment for major and minor emission points that will minimize emissions of odorous gases and eliminate ambient odor nuisances.
- (3) Require effective monitoring and reporting of emissions and reporting of other data pertinent to air quality or emissions. The Department will use these data in conjunction with ambient air data and observation of conditions in the surrounding area to develop and revise emission and ambient air standards, and to determine compliance therewith.
- (4) Encourage and assist the kraft pulping industry to conduct a research and technological development program designed to progressively reduce kraft mill emissions, in accordance with a definite program, including specified objectives and time schedules.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73

- Highest and Best Practicable Treatment and Control Required 340-25-160
- (1) Notwithstanding the specific emission limits set forth in OAR 340-25-165, in order to maintain the lowest possible emission of air contaminants, the highest and best practicable treatment and control currently available shall in every case be provided, with consideration being given to the economic life of the existing equipment.
- (2) All installed process and control equipment shall be operated at full effectiveness and efficiency at all times, such that emissions of contaminants are kept at lowest practicable levels.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73

Emission Limitations

340-25-165

- (1)Emission of Total Reduced Sulfur (TRS):
 - **Recovery Furnaces:** (a)
 - The emissions of TRS from each recovery furnace (A) placed in operation before January 1, 1969, shall not exceed 10 ppm and 0.15 Kg/metric ton (0.30 lb/ton) of production as daily arithmetic averages;
 - TRS emissions from each recovery furnace placed **(B)** in operation after January 1, 1969, and before September 25, 1976, or any recovery furnace modified significantly after January 1, 1969, and before September 25, 1976, to expand production shall be controlled such that the emissions of TRS shall not exceed 5 ppm and 0.075 Kg/metric ton (0.150 lb/ton) of production as daily arithmetic averages.
 - Lime Kilns. Lime kilns shall be operated and (b) controlled such that emissions of TRS shall not exceed 20 ppm as a daily arithmetic average and 0.05 Kg/metric ton (0.10 lb/ton) of production as a daily arithmetic average. This subsection applies to those sources where construction was initiated prior to September 25, 1976; (c)
 - Smelt Dissolving Tanks:
 - (A) [As soon as practicable, but not later than July 1, 1990, JTRS emissions from each smelt dissolving tank shall not exceed 0.0165 gram/Kg BLS(0.033 lb/ton BLS) as a daily arithmetic average, except as provided in paragraph (B) of this subsection;
 - **(B)** Where an explosion hazard, which was in existence on March 26, 1989, exists and control is not practical or economically not feasible and adequate documentation of these conditions is provided to the Department, the affected smelt dissolving tank shall not exceed 0.033 gram/Kg BLS (0.066 lb/ton BLS) as a daily average.
 - (d) Non-Condensibles. Non-condensibles from digesters, multiple-effect evaporators and contaminated condensate stripping shall be continuously treated to destroy TRS gases by thermal incineration in a lime

kiln or incineration device capable of subjecting the non-condensibles to a temperature of not less than 650° C. (1200° F.) for not less than 0.3 second. An alternate device meeting the above requirements shall be available in the event adequate incineration in the primary device cannot be accomplished. Venting of TRS gases during changeover shall be minimized but in no case shall the time exceed one hour;

- (e) Other Sources:
 - (A) The total emission of TRS from other sources including, but not limited to, knotters and brown stock washer vents, brown stock washer filtrate tank vents, and black liquor oxidation vents shall not exceed 0.078 Kg/metric ton (0.156 lb/ton) of production as a daily arithmetic average;
 - (B) Miscellaneous Sources and Practices. If it is determined that sewers, drains, and anaerobic lagoons significantly contribute to an odor problem, a program for control shall be required.
- (2) Particulate Matter:
 - (a) Recovery Furnaces. The emissions of particulate matter from each recovery furnace stack shall not exceed:
 - (A) 2.0 kilograms per metric ton (4.0 pounds per ton) of production as a daily arithmetic average;
 - (B) 0.30 gram per dry standard cubic meter (0.13 grain per dry standard cubic foot) as a daily arithmetic average[in accordance with OAR 340-25-150(17) and the Department Source Test Manual]; and
 - (C) 35 percent opacity for a period or periods aggregating more than thirty (30)minutes in any one hundred eighty (180) consecutive minutes or more than sixty (60) minutes in any twenty-four (24) consecutive hours (excluding periods when the facility is not operating).
 - (b) Lime Kilns. The emissions of particulate matter from each lime kiln stack shall not exceed:
 - (A) 0.50 kilogram per metric ton (1.00 pound per ton) of production as a daily arithmetic average;

- (C) SO₂ is the prorated standard for sulfur dioxide when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels and wood residue fired.
- (d) Compliance shall be based on the total heat input from all fossil burned, including gaseous fuels.
- Standards for Nitrogen Oxides. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO, in excess of:
 - 86 nanograms per joule heat input (0.20 lb. per million (a) BTU) derived from gaseous fossil fuel;
 - (b) 129 nanograms per joule heat input (0.30 lb. per million BTU) derived from for for the form for the form for the form for the form of the f fossil fuel and wood residue, or gaseous fossil fuel and wood residue;
 - (C) 300 nanograms per joule heat input (0.70 lb. per million BTU) derived from solid fossil fuel or solid fossil fuel and wood residue (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse);
 - When different fossil fuels are burned simultaneously (d) in any combination the applicable standard shall be determined by proration using the following formula:

 $PNO_{x} =$

$w(260) + x(86) + y(130) = \frac{1}{2} + z(300)$ w + x + y + z

- (A) PNO, is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels and wood residue fired; and
- (B) [B]w is the percentage of total heat input derived from lignite; and
- (C) [y]x is the percentage of total heat input derived from gaseous fossil fuel; and
- y is the percentage of total heat input derived (D) from liquid fossil fuel; and
- z is the percentage of total heat input derived (E) from solid fossil fuel (except lignite).
- When a fossil fuel containing at least 25 percent, by (e) weight, of coal refuse is burned in combination with gaseous, liquid, or other solid fossil fuel or wood residue, section (3) of this rule does not apply;

(3)

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- (B) 0.46 gram per dry standard cubic meter (0.20 grain per dry standard cubic foot) as a daily arithmetic average[<u>in accordance with OAR</u> 340-25-150(17) and the <u>Department Source Test</u> <u>Manual</u>]; and
- (C) The visible emission limitations in section (4) of this rule.
- (c) Smelt Dissolving Tanks. The emission of particulate matter from each smelt dissolving tank <u>[stack]vent</u> shall not exceed:
 - (A) A daily arithmetic average of 0.25 kilogram per metric ton (0.50 pound per ton) of production; and
 - (B) The visible emission limitations in section (4) of this rule.
- (d) Replacement or Significant Upgrading of existing particulate pollution control equipment after July 1, 1988 shall result in more restrictive standards as follows:
 - (A) Recovery Furnaces:
 - (i) The emission of particulate matter from each affected recovery furnace stack shall not exceed 1.00 kilogram per metric ton (2.00 pounds per ton) of production as a daily arithmetic average; and
 - (ii) 0.10 gram per dry standard cubic meter (0.044 grain per dry standard cubic foot) as a daily arithmetic average[in accordance with OAR 340-25-150(17) and the Department Source Test Manual].
 - (B) Lime Kilns:
 - (i) The emission of particulate matter from each affected lime kiln stack shall not exceed 0.25 kilogram per metric ton (0.50 pound per ton) of production as a daily arithmetic average; and
 - (ii) 0.15 gram per dry standard cubic meter (0.067 grain per dry standard cubic foot) as a daily arithmetic average[in accordance with OAR 340-25-150(17) and the Department Source Test Manual] when burning gaseous fossil fuel; or
 - (iii) 0.50 kilogram per metric ton (1.00 pound per ton) of production as a daily arithmetic average; and
 - (iv) 0.30 gram per dry standard cubic meter

(0.13 grain per dry standard cubic foot) as a daily arithmetic average[<u>in</u> accordance with OAR 340-25-150(17) and the <u>Department Source Test Manual</u>]

- (C) Smelt Dissolving Tanks. The emissions of particulate matter from each smelt dissolving tank vent [stack]shall not exceed 0.15 kilogram per metric ton (0.30 pound per ton) of production as a daily arithmetic average.
- (3) Sulfur Dioxide (SO₂). Emissions of sulfur dioxide from each recovery furnace stack shall not exceed a 3-hour arithmetic average of 300 ppm on a dry-gas basis except when burning fuel oil. The sulfur content of fuel oil used shall not exceed the sulfur content of residual and distillate oil established in OAR 340-22-010(2) and 340-22-015, respectively.
- (4) All kraft mill sources with the exception of recovery furnaces shall not exceed an opacity equal to or greater than 20 percent for a period exceeding three (3) minutes in any one (1) hour.
- (5) New Source Performance Standards. New or modified sources that commenced construction after September 24, 1976, are subject to each provision of this <u>fsection-frule</u> and the New Source Performance Standards, OAR 340-25-630, whichever is more stringent.
- [(6) Each mill with any recovery furnace, lime kiln, or smelt dissolving tank not in compliance by January 1, 1990 with the emission limitations of this section shall submit by July 1, 1990 a program and schedule for achieving compliance as soon as practicable but no later than July 1, 1991.
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[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77; DEQ 2-1990, f. & cert. ef. 1-24-90

More Restrictive Emission Limits

340-25-170 The Department may establish more restrictive

emission limits than the numerical emission standards contained in OAR 340-25-165 and maximum allowable daily mill site emission limits in kilograms <u>or pounds</u> per day for an individual mill upon a finding by the Department that:

- (1) The individual mill is located or is proposed to be located in a special problem area or an area where ambient air standards are exceeded or are projected to be exceeded or where the emissions will have a significant air quality impact in an area where the standards are exceeded; or
- (2) An odor or nuisance problem has been documented at any mill, in which case the TRS emission limits may be reduced below the regulatory limits; or
- (3) Other rules which are more stringent apply.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77; DEQ 2-1990, f. & cert. ef. 1-24-90

Plans and Specifications

340-25-175 Prior to construction of new kraft mills or modification of facilities affecting emissions at existing kraft mills, complete and detailed engineering plans and specifications for air pollution control devices and facilities and such other data as may be required to evaluate projected emissions and potential effects on air quality shall be submitted to and approved by the Department. All construction shall be in accordance with plans as approved in writing by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77

Monitoring

340-25-180

(1) General:

 (a) The details of the monitoring program for each mill shall be submitted to and approved by the Department. This submittal shall include diagrams and descriptions of all monitoring systems, monitoring frequencies, calibration schedules, descriptions of

		all sampling sites, data reporting formats and duration of maintenance of all data and reports. Any changes that are subsequently made in the approved monitoring program shall be submitted in writing to the Department for review and approved in writing prior to change;
	(b)	All records associated with the approved monitoring program including, but not limited to, original data sheets, charts, calculations, calibration data, production records and final reports shall be maintained for a continuous period of at least 2 calendar years and shall be furnished to the
	(c)	Department upon request; All source test data; TRS and SO ₂ concentrations (ppm), corrected for oxygen content, if required, that are determined by continuous monitoring
		equipment; and opacity as determined by continuous monitoring equipment or EPA Method 9 will be used to determine compliance with applicable emission standards. All continuous monitoring data, excluding the above, will be used to evaluate performance of emitting processes and associated control systems, and for the qualitative determination of plant site emissions.
(2)	Total	Reduced Sulfur (TRS). Each mill shall continuously
(-/		or TRS in accordance with the following:
	(a)	The monitoring equipment shall determine compliance with the emission limits and reporting requirements established by [these regulations] OAR 340-25-150 <u>through 340-25-205</u> , and shall continuously sample and record concentrations of TRS;
	(b)	The sources monitored shall include, but are not limited to individual recovery furnaces, and lime kilns. All sources shall be monitored downstream of their respective control equipment, in either the ductwork or the stack, in accordance with the Department Continuous (Emissions-)Monitoring ((CEMS)) Manual;
	(c)	At least once per year, vents from other sources as required in OAR 340-25-165(1)(e), Other Sources, shall be sampled to demonstrate the representativeness of the emissions of TRS using EPA Method 16, 16A, 16B or continuous emission monitors. EPA methods shall consist of three (3) separate consecutive runs of one hour each in accordance with the Department Source [Test]Sampling Manual. Continuous emissions monitors shall be operated for
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three consecutive hours in accordance with the Department Continuous [Emissions]Monitoring Manual. All results shall be reported to the Department;

- (d) Smelt dissolving tank vents shall be sampled for TRS quarterly except that testing may be semi-annual when the preceding six source tests were less than 0.0124 gram/Kg Bls (0.025 lb/ton Bls) using EPA Method 16, 16A, 16B or continuous emission monitors. EPA methods shall consist of three (3) separate consecutive runs of one hour each in accordance with the Department Source [Test]Sampling Manual.
- (3) Particulate Matter:
 - (a) Each mill shall sample the recovery furnace(s), lime kiln(s) and smelt dissolving tank vent(s) for particulate emissions in accordance with the Department Source <u>{Test}Sampling</u> Manual;
 - (b) Each mill shall provide continuous monitoring of opacity of emissions discharged to the atmosphere from each recovery furnace stack in accordance with the Department Continuous [Emissions]Monitoring Manual; or
 - (c) Where monitoring of opacity from each recovery furnace is not feasible, provide continuous monitoring of particulate matter from each recovery furnace using sodium ion probes in accordance with the Department Continuous [Emissions]Monitoring Manual;
 - (d) Recovery furnace particulate source tests shall be performed quarterly except that testing may be semi-annual when the preceding six (6) source tests were less than 0.225 gram/dscm (0.097 grain/dscf) for furnaces subject to OAR 340-25-165(2)(a) or 0.075 gram/dscm (0.033 grain/dscf) for furnaces subject to OAR 340-25-165(2)(d)(A);
 - (e) Lime kiln source tests shall be performed semi-annually;
 - (f) Smelt dissolving tank vent source tests shall be performed quarterly except that testing may be semi-annual when the preceding six (6) source tests were less than 0.187 Kilogram per metric ton (0.375 pound per ton) of production.
- (4) Sulfur Dioxide (S0₂). Representative sulfur dioxide emissions from each recovery furnace shall be determined at least once each month by the average of three (3) one hour source tests in accordance with the **Department Source** <u>{Test}Sampling</u> Manual or from continuous emission monitors. If continuous emission monitors are used, the monitors

shall be operated for three consecutive hours in accordance with the **Department Continuous** [Emissions]Monitoring Manual.

(5) Combined Monitoring. The Department may allow the monitoring for opacity of a combination of more than one emission stream if each individual emission stream has been demonstrated with the exception of opacity to be in compliance with all the emission limits of OAR 340-25-165. The Department may establish more stringent emission limits for the combined emission <u>stream</u>.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of <u>{Environemntal}Environmental</u> Quality.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A
Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77;
DEQ 2-1990, f. & cert. ef. 1-24-90

Reporting

340-25-185 Unless otherwise authorized or required by permit, data shall be reported by each mill for each calendar month by the fifteenth day of the subsequent calendar month as follows:

- (1) Applicable daily average emissions of TRS gases expressed in parts per million of H_2S on a dry gas basis with oxygen concentrations, if oxygen corrections are required, for each source included in the approved monitoring program.
- (2) Daily average emissions of TRS gases in pounds of total reduced sulfur per equivalent ton of pulp processed, expressed as H_2S , for each source included in the approved monitoring program.
- (3) 3-Hour average emission of SO₂ based on all samples collected in one sampling period from the recovery furnace(s), expressed as ppm, dry basis.
- (4) All daily average opacities for each recovery furnace stack where transmissometers are utilized.
- (5) All 6-minute average opacities from each recovery furnace stack that exceeds 35 percent.
- (6) Daily average kilograms of particulate per equivalent metric ton (pounds of particulate per equivalent ton) of pulp produced for each recovery furnace stack. Where

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transmissometers are not feasible, the mass emission rate shall be determined by alternative sampling conducted in accordance with OAR 340-25-180(3)(c).

- (7) The results of each recovery furnace particulate source test in grams per standard cubic meter (grains per dry standard cubic foot) and for the same source test period the hourly average opacity, where transmissometers are used, and the particulate monitoring record obtained in accordance with the approved or the alternate monitoring program in OAR 340-25-180(3)(c);
- (8) Unless otherwise approved in writing, all periods of non-condensible gas bypass shall be reported.
- (9) Upset conditions shall be reported in accordance with OAR 340-25-190(3).
- (10) Each kraft mill shall furnish, upon request of the Department, such other pertinent data as the Department may require to evaluate the mill's emission control program.
- (11) Monitoring data reported shall reflect actual observed levels corrected for oxygen, if required, and analyzer calibration.
- (12) Oxygen concentrations used to correct pollutant data shall reflect oxygen concentrations at the point of measurement of pollutants.
- (13) The Department shall be notified at least [ten (10)]]fifteen (15) days in advance of all scheduled reference method testing including all scheduled changes.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77; DEQ 2-1990, f. & cert. ef. 1-24-90

Upset Conditions

340-25-190

(1) Each mill shall report to the Department abnormal mill operations including control and process equipment maintenance, or unexpected upsets that result in emissions in excess of the regulatory or air contaminant discharge permit limits within one hour, or when conditions prevent prompt notice, as soon as possible but no later than one hour after the start of the next working day. The mill shall also take immediate corrective action to reduce emission levels to regulatory or permit levels.

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- (2) Upsets shall be reported in writing with an accompanying report on measures taken or to be taken to correct the condition and prevent its reoccurrence within five (5) working days of each incident.
- Each mill shall report the cumulative duration in hours (3) each month of the upsets reported in section (1) of this rule and classified as to: (a)
 - **Recovery Furnace:**
 - (A) TRS;
 - (B) Particulate.
 - Lime Kiln: (b)
 - (A) TRS:
 - Particulate. (B)
 - (C) Smelt Tank Particulate.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 [.460(1)] & 468A Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77; DEQ 2-1990, f. & cert. ef. 1-24-90

Other Established Air Quality Limitations 340-25-195 [DEQ 50, f. 2-9-73, ef. 3-1-73; Repealed by DEQ 137, f. & ef. 6-10-77]

Public Hearing 340-25-200 [DEQ 50, f. 2-9-73, ef. 3-1-73; Repealed by DEQ 137, f. & ef. 6-10-77]

Chronic Upset Conditions

340-25-205 If the Department determines that an upset condition is chronic and correctable by installing new or modified process or control procedures or equipment, a program and schedule to effectively eliminate the deficiencies causing the upset conditions shall be submitted. Such reoccurring upset conditions causing emissions in excess of applicable limits may be subject to civil penalty or other appropriate action.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 2-1990, f. & cert. ef. 1-24-90

Neutral Sulfite Semi-Chemical (NSSC) Pulp Mills

Definitions

340-25-220 As used in [these regulations, unless otherwise required by context] OAR 340-25-220 through 340-25-234:

- f(10) f(1) "Acid Absorption Tower" means the device where the sodium carbonate and sulfur dioxide react to form a sodium sulfite solution prior to use as the cooking liquor.
- [(4)](2) "BLS" means black liquor solids, dry weight.
- (1) (3) "Continual Monitoring" means sampling and analysis, in a timed sequence, using techniques which will adequately reflect actual emission levels or concentrations on an ongoing basis.
- (13)](4) "Continuous Monitoring" means instrumental sampling of a gas stream on a continuous basis, excluding periods of calibration.
- Arithmetic Average" "Daily $\frac{(14)}{(5)}$ means the average concentration over the twenty-four hour period in a calendar day or, Department approved equivalent period, as determined by continuous monitoring equipment or reference method testing. Determinations based on EPA reference methods or equivalent methods in accordance with the Department Source [Test]Sampling Manual consist of three (3) separate consecutive runs having a minimum sampling time of sixty (60) minutes each and a maximum sampling time of eight (8) hours each. The three values for concentration (ppm or grains/dscf) are averaged and expressed as the daily arithmetic average which is used to determine compliance with process weight limitations, grain loading or volumetric concentration limitations and to determine daily emission rate.
- [(2)](6) "Department" means the Department of Environmental Quality.
- [(3)](7) "Emission" means a release into the atmosphere of air contaminants.
- (5)](8) "Neutral Sulfite Semi-Chemical (NSSC) Pulp Mill" means any industrial operation which uses for cooking, a liquor prepared from a sodium carbonate solution and sulfur dioxide at a neutral <u>{PH}pH</u>, range 6-8.
- **[(6)](9)** "Particulate Matter" means all solid or liquid material, other than uncombined water, emitted to the

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	ambient air as measured by EPA Method 5 or an
	equivalent test method in accordance with the
	Department Source {Test Sampling Manual. Particulate
•	matter emission determinations by EPA Method 5 shall
	use water as the cleanup solvent instead of acetone,
	and consist of the average of three (3) separate
	consecutive runs having a minimum sampling time of 60
	minutes each, a maximum sampling time of eight (8)
	hours each, and a minimum sampling volume of 31.8 dscf
	each.
F/711/101	
[(7)](10)	"Parts [p]Per Million (ppm)" means parts of a
	contaminant per million parts of gas by volume on a
- (-) - ()	dry-gas basis (one ppm equals 0.0001% by volume).
[(8)](11)	"Production" means the daily amount of virgin air-dried
	unbleached NSSC pulp, or equivalent, produced during
	the 24-hr period each calendar day, or Department
	approved equivalent period, expressed in air-dried
	metric tons (ADMT) per day. The corresponding English
	unit is air-dried tons (ADT) per day.
[(9)](12)	"Spent Liquor Incinerator" means the combustion device
	in which pulping chemicals are subjected to high
	temperature to evaporate the water, incinerate organics
	and reclaim the sodium sulfate (saltcake) and sodium
	carbonate.
[(11)](13)	"Standard Dry Cubic Meter" means the amount of gas that
	would occupy a volume of one cubic meter, if the gas
	were free of uncombined water, at a temperature of 20
	°C. (68 °F.) and a pressure of 760 mm of mercury.
[(12)](14)	"Total Reduced Sulfur (TRS)" means the sum of the
	sulfur compounds hydrogen sulfide, methyl mercaptan,

sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, and any other organic sulfides present <u>expressed as hydrogen sulfide</u> <u>(H₂S).</u> These monitors shall be located downstream of the control device.

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[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 2-1990, f. & cert. ef. 1-24-90

Highest and Best Practicable Treatment and Control Required 340-25-222

- (1) Notwithstanding the specific emission limits set forth in OAR 340-25-224, in order to maintain the lowest possible emission of air contaminants, the highest and best practicable treatment and control currently available shall in every case be provided, with consideration being given to the economic life of the existing equipment.
- (2) All installed process and control equipment shall be operated at full effectiveness and efficiency at all times, such that emissions of contaminants are kept at lowest practicable levels.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 2-1990, f. & cert. ef. 1-24-90

Emission Limitations

340-25-224

- (1) Emission of Total Reduced Sulfur (TRS): Spent Liquor Incinerator. The emissions of TRS from any spent liquor incinerator stack shall not exceed 10 ppm and 0.07 gram/kg BLS (0.14 lb/ton BLS) as a daily arithmetic average[in accordance with OAR 340-25-220(14)].
- (2) Particulate Matter: Spent Liquor Incinerator. The emissions of particulate matter from any spent liquor incinerator stack shall not exceed:
 - (a) lbs/ton BLS) 3.6 grams/kg BLS (7.2 as a daily arithmetic average accordance in with [OAR 340-25-220(14)----<u>---and---</u> Department Source **Test|Sampling** Manual; and
 - (b) <u>{Exhibit a]A</u>n opacity equal to or greater than 35 percent for a period exceeding 3 minutes in any one hour{{]excluding periods when the facility is not operating{}].
- (3) Sulfur Dioxide (SO_2) :
 - (a) Spent Liquor Incinerator. The emissions of sulfur dioxide from each spent liquor incinerator stack shall not exceed a 3-hr arithmetic average of 10 ppm on a dry{-} gas basis;
 - (b) Acid Absorption Tower. The emissions of sulfur dioxide from the acid absorption tower stack shall not exceed 20 ppm as a 3-hr arithmetic average on a dry gas basis.

(4) All NSSC sources, with the exception of spent liquor incinerators, shall not exhibit an opacity equal to or greater than 20 percent for a period exceeding three (3) minutes in any one hour.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 2-1990, f. & cert. ef. 1-24-90

More Restrictive Emission Limits

340-25-226 The Department may establish more restrictive emission limits than the numerical emission standards contained in OAR 340-25-224 and maximum allowable daily mill site emission limits in kilograms <u>or pounds</u> per day, for an individual mill, upon a finding by the Department that:

- (1) The individual mill is located or is proposed to be located in a special problem area or an area where ambient air standards are exceeded or are projected to be exceeded; or
- (2) When an odor or nuisance problem has been documented at any mill the TRS emission limits may be reduced below the regulatory limits [.]; or
- (3) Other rules which are more stringent apply.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 2-1990, f. & cert. ef. 1-24-90

Plans and Specifications

340-25-228 Prior to construction of new neutral sulfite semi-chemical (NSSC) pulp mills or modification of facilities affecting emissions at existing NSSC mills, complete and detailed engineering plans and specifications for air pollution control devices and facilities and such data as may be required to evaluate projected emissions and potential effects on air quality shall be submitted to and approved by the Department. All construction shall be in accordance with plans as approved in writing by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 2-1990, f. & cert. ef. 1-24-90

Monitoring

(2)

340-25-230

- (1) General:
 - The details of the monitoring program for each mill (a) shall be submitted to and approved by the Department. This submittal shall include diagrams and descriptions of all monitoring systems, monitoring frequencies, calibration schedules, descriptions of all sampling duration sites, data reporting formats and of maintenance of all data and reports. Any changes that are subsequently made in the approved monitoring program shall be submitted in writing to the Department for review and approved in writing prior to change;
 - (b) All records associated with the approved monitoring program including, but not limited to, original data sheets, charts, calculations, calibration data, production records and final reports shall be maintained for a period of at least two calendar years and shall be furnished to the Department upon request. Sulfur (a) Total Reduced (TRS). Each mill shall continuously monitor the spent liquor incinerator for TRS emissions using: continuous monitoring equipment, except where a vibration problem, which was in existence on March 26, 1989, exists and continuous monitoring equipment is not practical or economically
 - feasible; in which case, upon documentation of the above condition, the spent liquor incinerator shall be sampled for TRS emissions using the reference method and the analytical method (EPA Method 16, 16A, or 16B) as outlined in the **Department Source** {Test}Sampling Manual;
 - (b) Spent liquor incinerator TRS source tests shall be performed quarterly except that testing may be semi-annual when the preceding six (6) source tests were less than 7.5 ppm;
 - (c) Flow rate measurements used to determine TRS mass emission rates shall be corrected for cyclonic flow, where applicable.
- (3) (a) Particulate Matter. Each mill shall sample the spent liquor incinerator for particulate emissions with:

- (A) The sampling method; and
- (B) The analytical method specified in the **Department Source** <u>[Test]Sampling</u> Manual.
- (b) Spent liquor incinerator particulate source tests shall be performed quarterly except that testing may be semi-annual when the preceding six (6) source tests were less than <u>f0.05j2.7</u> Gram<u>s</u>/Kg BLS (<u>f0.10j5.4</u> lb<u>s</u>/ton BLS). All sampling data shall be corrected for cyclonic flow, where applicable;
- (c) Each mill shall provide continuous monitoring of opacity of emissions discharged to the atmosphere from the spent liquor incinerator, and the acid plant in accordance with the Department Continuous [Emission] Monitoring Manual; except that when continuous monitoring of opacity is not feasible due to excessive moisture then EPA Method 9 shall be used for the determination of opacity.
- (4) Sulfur Dioxide (S0₂). Representative sulfur dioxide emissions from spent liquor incinerators and from the acid absorption tower shall be determined at least once every six (6) months with:
 - (A) The sampling method; and
 - (B) The analytical method specified in the **Department Source [Test]Sampling** Manual.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 2-1990, f. & cert. ef. 1-24-90

Reporting

340-25-232 Unless otherwise authorized by permit, data shall be reported by each mill for each sampling period by the fifteenth day of the first month following the applicable sampling period as follows:

(1) Daily average emissions of TRS gases in kilograms of total reduced sulfur per metric ton (pounds of total reduced sulfur per ton) of black liquor solids expressed as H_2S based on all samples collected in one sampling period from the spent liquor incinerator.

- (2) Daily average emissions of particulate in kilograms per metric ton (pounds per ton) of black liquor solids based on all samples collected in one sampling period from the spent liquor incinerator.
- (3) Daily average concentration of sulfur dioxide in ppm for each source included in the approved monitoring program based on all samples collected in any one sampling period.
- (4) Daily average amount of virgin air-dried unbleached NSSC pulp produced expressed as air dried metric tons per day (air dried tons per day).
- (5) Daily average amount of black liquor solids, dry weight, fired in the spent liquor incinerator during periods of operation.
- (6) Upset conditions shall be reported in accordance with OAR 340-25-234(3).
- (7) Each mill shall furnish, upon request of the Department, such other pertinent data as the Department may require to evaluate the mills emission control program.
- (8) The Department shall be notified at least <u>[ten (10)]</u><u>fifteen</u> (15) days in advance of all scheduled reference method testing including all scheduled changes.
- (9) Data reported shall reflect actual observed levels.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 2-1990, f. & cert. ef. 1-24-90

Upset Conditions

- 340-25-234
- (1) Each mill shall report abnormal mill operations to the Department including control and process equipment maintenance, or unexpected upsets that result in emissions in excess of the regulatory or air containment discharge permit limits within one hour, or when conditions prevent prompt notification, as soon as possible but no later than one hour after the start of the next working day. The mill shall also take immediate corrective action to reduce emission levels to regulatory or permit levels.
- (2) Upsets shall be reported in writing with an accompanying report on measures taken or to be taken to correct the condition and prevent its reoccurrence within five (5) working days of each incident.

- (3) Each mill shall report the cumulative duration in hours each month of the upsets reported in section (1) of this rule and classified as to:
 - (a) Spent Liquor Incinerator:
 - (A) TRS;
 - (B) Particulate;
 - (C) S0₂;
 - (D) Opacity.
 - (b) Acid Absorption Tower:
 - (A) $SO_2;$
 - (B) Opacity.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468[.460(1)] & 468A Hist.: DEQ 2-1990, f. & cert. ef. 1-24-90

Primary Aluminum Plants

[ED. NOTE: Administrative Order DEQ 60 repealed previous OAR 340-25-255 through 340-25-290 (consisting of DEQ 19, filed 7-14-70 and effective 8-10-70).]

Statement of Purpose

340-25-255 In furtherance of the public policy of the state as set forth in ORS <u>[468.280]468A.010</u>, it is hereby declared to be the purpose of the Commission in adopting the following regulations to:

(1) Require, in accordance with a specific program and time table for each operating

primary aluminum plant, the highest and best practicable collection, treatment, and control of atmospheric pollutants emitted from primary aluminum plants through the utilization of technically feasible equipment, devices, and procedures necessary to attain and maintain desired air quality.

- (2) Require effective monitoring and reporting of emissions, ambient air levels of fluorides, fluoride content of forage, and other pertinent data, The Department will use these data, in conjunction with observation of conditions in the surrounding areas, to develop emission and ambient air standards and to determine compliance therewith.
- (3) Encourage and assist the aluminum industry to conduct a research and technological development program designed to reduce emissions, in accordance with a definite program, including specified objectives and time schedules.

(4) Establish standards which, based upon presently available technology, are reasonably attainable with the intent of revising the standards as needed when new information and better technology are developed.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 60, f. 12-5-73, ef. 12-25-73; DEQ 10-1982, f. & ef. 6-18-82

Definitions

340-25-260 As used in OAR 340-25-255 through 340-25-285:

- (1) "All Sources" means sources including, but not limited to, the reduction process, alumina plant, anode plant, anode baking plant, cast house, and collection, treatment, and recovery systems.
- (2) "Ambient Air" means the air that surrounds the earth, excluding the general volume of gases contained within any building or structure.
- (3) "Annual Average" means the arithmetic average of the monthly averages reported to the Department during the twelve most recent consecutive months.
- (4) "Anode Baking Plant" means the heating and sintering of pressed anode blocks in oven-like devices, including the loading and unloading of the oven-like devices.
- (5) "Anode Plant" means all operations directly associated with the preparation of anode carbon except the anode baking operation.
- (6) "Commission" means Environmental Quality Commission.
- (7) "Cured Forage" means hay, straw, ensilage that is consumed or is intended to be consumed by livestock.
- (8) "Department" means Department of Environmental Quality.
- (9) "Emission" means a release into the outdoor atmosphere of air contaminants.
- (10) "Emission Standards" means the limitation on the release of contaminant or multiple contaminants to the ambient air.
- (11) "Fluorides" means matter containing fluoride ion.
- (12) "Forage" means grasses, pasture, and other vegetation that is consumed or is intended to be consumed by livestock.
- (13) "Monthly Average" means the summation of the arithmetic average of all representative test results obtained during any calendar month and the emission rates established for sources not subject to routine testing.

- (14) "Opacity" means the degree to which an emission reduces transmission of light or obscures the view of an object in the background.
- (15) "Particulate Matter" means a small discrete mass of solid or liquid matter, but not including uncombined water.
- (16) "Primary Aluminum Plant" means those plants which will or do operate for the purpose of, or related to, producing aluminum metal from aluminum oxide (alumina).
- (17) "Pot Line Primary Emission Control Systems" means the system which collects and removes contaminants prior to the emission point. If there is more than one such system, the primary system is that system which is most directly related to the aluminum reduction cell.
- (18) "Regularly Scheduled Monitoring" means sampling and analyses in compliance with a program and schedule approved pursuant to OAR 340-25-280.
- (19) "Ringlemann Smoke Chart" means the Ringlemann Smoke Chart with instructions for use as published in May, 1967, by the U.S. Department of Interior, Bureau of Mines.
- (20) "Standard Dry Cubic Foot of Gas" means that amount of the gas which would occupy a cube having dimensions of one foot on each side, if the gas were free of water vapor at a pressure of 14.7 P.S.I.A. and a temperature of 68 °F.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 60, f. 12-5-73, ef. 12-25-73; DEQ 10-1982, f. & ef. 6-18-82

Emission Standards

340-25-265

- (1) The exhaust gases from each primary aluminum plant constructed after January 1, 1973, shall be collected and treated as necessary so as not to exceed the following minimum requirements:
 - (a) Total fluoride emissions from all sources shall not exceed:
 - (A) A monthly average of 1.3 pounds of fluoride ion per ton of aluminum produced; and

- (B) An annual average of 1.0 pound of
 - fluoride ion per ton of aluminum produced; and
- 12.5 tons of fluoride ion per month from any (C) single aluminum plant without prior written approval by the Department.
- (b) The total of organic and inorganic particulate matter emissions from all sources shall not exceed:
 - A monthly average of 7.0 pounds of particulate (A) per ton of aluminum produced; and
 - An annual average of 5.0 pounds of particulate (B) per ton of aluminum produced.
- Visible emissions from any source shall not exceed ten (C) (10) percent opacity or 0.5 on the Ringlemann Smoke Chart at anytime.
- (2)Each primary aluminum plant constructed and operated after January 1, 1973, shall be in full compliance with [these regulations] OAR 340-25-255 through 340-25-285 no later than 180 days after completing potroom start-up and shall maintain full compliance thereafter.
- The exhaust gases from each primary aluminum plant constructed on or before January 1, 1973, shall be collected and treated as necessary so as not to exceed the following minimum requirements:
 - Total fluoride emissions from all sources shall not (a) exceed:
 - (A) A monthly average of 3.5 pounds of fluoride ion per ton of aluminum produced; and
 - An annual average of 2.5 pounds of fluoride ion (B) per ton of aluminum produced; and
 - 22.0 tons of fluoride ion per month from any (C) single aluminum plant without prior written approval by the Department.
 - The total of organic and inorganic particulate matter (b) emissions from all sources at plants using vertical stud Soderberg cells shall not exceed:
 - (A) A monthly average of 13.0 pounds of particulate per ton of aluminum produced; and
 - An annual average of 10.0 pounds of particulate (B) per ton of aluminum produced.
 - (C) The total of organic and inorganic particulate matter emissions from all sources at plants using prebake cells shall not exceed:
 - A monthly average of 15.6 pounds of particulate (A) per ton of aluminum produced; and
 - (B) An annual average of 13.5 pounds of particulate per ton of aluminum produced.

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- (d) Visible emissions from any source shall not exceed 20 percent opacity or 1.0 on the Ringlemann Smoke Chart at any time.
- (4) Each existing primary aluminum plant shall comply with these regulations] OAR 340-25-255 through 340-25-285 upon adoption.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 60, f. 12-5-73, ef. 12-25-73; DEQ 4-1980, f. & ef. 1-28-80; DEQ 10-1982, f. & ef. 6-18-82

Special Problem Areas

340-25-270 The Department may require more restrictive emission limits than the numerical emission standards contained in OAR 340-25-265 for an individual plant upon a finding by the Commission that the individual plant is located, or is proposed to be located, in a special problem area. Such more restrictive emission limits for special problem areas may be established on the basis of allowable emissions per ton of aluminum produced or total maximum daily emissions to the atmosphere, or a combination thereof, and may be applied on a seasonal or year-round basis.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 60, f. 12-5-73, ef. 12-25-73

Highest and Best Practicable Treatment and Control Requirement

340-25-275 In order to maintain the lowest possible emissions of air contaminants, the highest and best practicable treatment and control currently available shall in every case be provided, but this section shall not be construed to allow emissions to exceed the specific emission limits set forth in OAR 340-25-265.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 60, f. 12-5-73, ef. 12-25-73

Monitoring

340-25-280

- Each primary aluminum plant constructed and operated on or (1)before January 1, 1973, shall submit and conduct a detailed, effective monitoring program. The program shall include regularly scheduled monitoring and testing by the plant of emissions of gaseous and particulate fluorides and total particulates. Each plant shall test emissions from each operating potline once per calendar month. A minimum of three (3) representative tests shall be taken each month. All such testing shall include simultaneous sampling of control system(s) and/or roof vents. Anode bake oven control systems shall be tested at least once per month. All tests shall be taken on prespecified dates. A schedule for measurement of fluoride levels in forage and ambient air shall be submitted. The Department shall establish a monitoring program for each plant which shall be placed in effective operation within ninety (90) days after written notice to the plant by the Department of the established monitoring program.
- (2) Each primary aluminum plant proposed to be constructed and operated after January 1, 1973, shall submit a detailed pre-construction and post-construction monitoring program as a part of the air contaminant discharge permit application.
- (3) All monitoring methods used to demonstrate compliance with these rules] OAR 340-25-255 through 340-25-285, including sampling and analytical procedures, must be filed with and approved by the Department. Where applicable, methods in the Department Source [Test]Sampling Manual, including, but not limited to, Methods 5 and 7 for particulates and Methods 13A or 13B for fluorides, shall be used.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 60, f. 12-5-73, ef. 12-25-73; DEQ 10-1982, f. & ef. 6-18-82

Reporting 340-25-285

- (1) Unless otherwise authorized in writing by the Department, data for each source and station included in the approved monitoring program shall be reported by each primary aluminum plant within thirty (30) days of the end of each calendar month as follows:
 - (a) Ambient air: Twelve-hour concentrations of gaseous fluoride in ambient air expressed in micrograms per cubic meter of air, and in parts per billion (ppb); falso 28-day test results using calcium formate ("limed") paper expressed in micrograms of fluoride per centimeter squared per cubic meter (ug/-cm²/m³)];
 - (b) Forage: Concentrations of fluoride in forage expressed in parts per million (ppm) of fluoride on a dried weight basis;
 - (c) Particulate emissions: Results of all emission sampling conducted during the month for particulates, expressed in grains per standard dry cubic foot, in pounds per day, and in pounds per ton of aluminum produced. The method of calculating pounds per ton shall be as approved specified in the monitoring programs. Particulate data shall be reported as total particulates and percentage of fluoride ion contained therein;
 - (d) Gaseous emissions: Results of all sampling conducted during the month for gaseous fluorides. All results shall be expressed as fluoride ion in micrograms per cubic meter and pounds per day of fluoride ion, and in pounds of fluoride ion per ton of aluminum produced;
 - (e) Other emission and ambient air data as specified in the approved monitoring program;
 - (f) Changes in collection efficiency of any portion of the collection or control system that resulted from equipment or process changes.
- (2) Each primary aluminum plant shall furnish, upon request of the Department, such other data as the Department may require to evaluate the plant's emission control program. Each primary aluminum plant shall report the value of each emission test performed during that reporting period, and shall also immediately report abnormal plant operations which result in increased emission of air contaminants.
- (3) No person shall construct, install, establish, or operate a primary aluminum plant without first applying for and obtaining an air contaminant discharge permit from the Department. Addition to, or enlargement or replacement of, a primary aluminum plant or any major alteration thereof shall be construed as construction, installation, or establishment.

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[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 60, f. 12-5-73, ef. 12-25-73; DEQ 10-1982, f. & ef. 6-18-82

Revision of Emission Standards 340-25-290 [DEQ 19, f. 7-14-70, ef. 8-10-70; Repealed by DEQ 60, f. 12-5-73, ef. 12-25-73]

> Board Products Industries (Veneer, Plywood, Particleboard, Hardboard)

Definitions

340-25-305 As used in OAR 340-25-305 through 340-25-325 (, unless otherwise required by context):

- (1) "Average Operating Opacity" means the opacity of emissions determined using EPA Method 9 on any three days within a 12month period which are separated from each other by at least 30 days; a violation of the average operating opacity limitation is judged to have occurred if the opacity of emissions on each of the three days is greater than the specified average operating opacity limitation.
- (2) "Department" means Department of Environmental Quality.
- (3) "Emission" means a release into the outdoor atmosphere of air contaminants.
- (4) "EPA Method 9" means the method for Visual Determination of the Opacity of Emissions From Stationary Sources as promulgated by the U.S. Environmental Protection Agency in Title 40 of the Code of Federal Regulations, Part 60, Appendix A, Method 9.
- (5) "Fuel Moisture Content By Weight Greater Than 20 Percent" means bark, hogged wood waste, or other wood with an average moisture content of more than 20 percent by weight on a wet basis as used for fuel in the normal operation of a woodfired veneer dryer as measured by ASTM D4442-84 during compliance source testing.
- (6) "Fuel Moisture Content By Weight Less Than 20 Percent" means pulverized ply trim, sanderdust, or other wood with an average moisture content of 20 percent or less by weight on a wet basis as used for fuel in the normal operation of a wood-fired veneer dryer as measured by ASTM D4442-84 during compliance source testing.

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- (7) "Fugitive Emissions" means dust, fumes, gases, mist, odorous matter, vapors or any combination thereof not easily given to measurement, collection, and treatment by conventional pollution control methods.
- (8) "Hardboard" means a flat panel made from wood that has been reduced to basic wood fibers and bonded by adhesive properties under pressure.
- (9) "Maximum Opacity" means the opacity as determined by EPA Method 9 (average of 24 consecutive observations).
- (10) "Opacity" means the degree to which an emission reduces transmission of light or obscures the view of an object in the background.
- (11) "Operations" includes plant, mill, or facility.
- (12) "Particleboard" means matformed flat panels consisting of wood particles bonded together with synthetic resin or other suitable binder.
- (13)"Particulate Matter" means all solid or liquid material, other than uncombined water, emitted to the ambient air as measured in accordance with the Department Source Sampling Particulate matter emission determinations shall Manual. consist of the average of three separate consecutive runs. For sources tested using DEQ Method 7, each run shall have a minimum sampling time of one hour, a maximum sampling time of eight hours, and a minimum sampling volume of 31.8 dscf. For sources tested using DEQ Method 8, each run shall have a minimum sampling time of 15 minutes and shall collect a minimum particulate sample of 100 mg. Veneer dryers, wood particle dryers, fiber dryers and press/cooling vents shall be tested with DEQ Method 7; and air conveying systems shall be tested with DEQ Method 8.
- f(13) f(14) "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the Federal Government and any agencies thereof.
- [(14)](15) "Plywood" means flat panel built generally of an odd number of thin sheets of veneers of wood in which the grain direction of each ply or layer is at right angles to the one adjacent to it.
- (15)](16) "Special problem area" means the formally designated Portland, Eugene-Springfield, and Medford AQMAs and other specifically defined areas that the Environmental Quality Commission may formally designate in the future. The purpose of such designation will be to assign more stringent emission limits as may be necessary to attain and maintain ambient air standards or to protect the public health or welfare.

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- [(16)](17) "Tempering oven" means any facility used to bake hardboard following an oil treatment process.
- [(17)](18) "Veneer" means a single flat panel of wood not exceeding 1/4 inch in thickness formed by slicing or peeling from a log.
- **[(18)](19)** "Wood fired veneer dryer" means a veneer dryer which is directly heated by the products of combustion of wood fuel in addition to or exclusive of steam or natural gas or propane combustion.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 26, f. 3-31-71, ef. 4-25-71; DEQ 132, f. & ef. 4-11-77; DEQ 7-1979, f. & ef. 4-20-79; AQ 12, f. & ef. 11-13-91

General Provisions 340-25-310

- (1) [These regulations]OAR 340-25-305 through 340-25-325 establish minimum performance and emission standards for veneer, plywood, particleboard, and hardboard manufacturing operations.
- (2) Emission limitations established herein are in addition to, and not in lieu of, general emission standards for visible emissions, fuel burning equipment, and refuse burning equipment, except as provided for in OAR 340-25-315.
- (3) Emission limitations established herein and stated in terms of pounds per 1000 square feet of production shall be computed on an hourly basis using the maximum 8 hour production capacity of the plant.
- (4) Upon adoption of [these regulations] OAR 340-25-305 through 340-25-325, each affected veneer, plywood, particle-board, and hardboard plant shall proceed with a progressive and timely program of air pollution control, applying the highest and best practicable treatment and control currently available. Each plant shall at the request of the Department submit periodic reports in such form and frequency as directed to demonstrate the progress being made toward full compliance with [these regulations] OAR 340-25-305 through 340-25-325.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 26, f. 3-31-71, ef. 4-25-71; DEQ 132, f. & ef. 4-11-77

Veneer and Plywood Manufacturing Operations 340-25-315

- (1) Veneer Dryers:
 - (a) Consistent with section 340-25-310(1) through (4), it is the object of this section to control air contaminant emissions, including, but not limited to, condensible hydrocarbons such that visible emissions <u>{form}from</u> each veneer dryer are limited to a level which does not cause a characteristic "blue haze" to be observable;
 - (b) No person shall operate any veneer dryer such that visible air contaminants emitted from any dryer stack or emission point exceed:
 - (A) An average operating opacity of 10%; and
 - (B) A maximum opacity of 20%.

(c) Particulate emissions from wood fired veneer dryers shall not exceed:

- (A) 0.75 pounds per 1000 square feet of veneer dried
 (3/8" basis) for units using fuel which has a moisture content by weight of 20% or less;
- (B) 1.50 pounds per 1000 square feet of veneer dried
 (3.8" basis) for units using fuel which has a moisture content by weight of greater than 20%;
- (C) In addition to paragraphs <u>f(9)</u> (c) (A) and (B) of this section, 0.40 pounds per 1000 pounds of steam generated in boilers which exhaust gases to the veneer dryer.
- (d) Exhaust gases from fuel-burning equipment vented to the veneer dryer are exempt from OAR 340-21-020.
- (e) Each veneer dryer shall be maintained and operated at all times such that air contaminant generating processes and all contaminant control equipment shall be at full efficiency and effectiveness so that the emission of air contaminants are kept at the lowest practicable levels;
- (f) No person shall willfully cause or permit the installation or use of any means, such as dilution, which, without resulting in a reduction in the total amount of air contaminants emitted, conceals an emission which would otherwise violate this rule;

- Where effective measures are not taken to minimize (q) fugitive emissions, the Department may require that the equipment or structures in which processing handling, and storage are done be tightly closed, modified, or operated in such a way that air contaminants are minimized, controlled, or removed before discharge to the open air;
- The Department may require more restrictive emission (h) limits than provided in subsections (1) (b) and (c) of this rule for an individual plant upon a finding by the Commission that the individual plant is located or is proposed to be located in a special problem area. The more restrictive emission limits for special problem areas may be established on the basis of allowable emissions expressed in opacity, pounds per hour, or total maximum daily emissions to the atmosphere, or a combination thereof.
- Other Emission Sources:
 - No person shall cause to be emitted particulate matter (a) from veneer and plywood mill sources, including, but not limited to, sanding machines, saws, presses, barkers, hogs, chippers, and other material size reduction equipment, process or space ventilation systems, and truck loading and unloading facilities in excess of a total from all sources within the plant site of one (1.0) pound per 1000 square feet of plywood or veneer production on a 3/8 inch basis of finished product equivalent;
 - Excepted from subsection (2)(a) of this rule f_{-1} are (b) veneer dryers, fuel burning equipment, and refuse burning equipment.
- (3) Monitoring and Reporting: The Department may require any veneer dryer facility to establish an effective program for monitoring the visible air contaminant emissions from each veneer dryer emission point. The program shall be subject to review and approval by the Department and shall consist of the following:
 - (a) A specified minimum frequency for performing visual opacity determinations on each veneer dryer emission point:
 - All data obtained shall be recorded on copies of a (b) "Veneer Dryer Visual Emissions Monitoring Form" which shall be provided by the Department of Environmental Quality or on an alternative form which is approved by the Department; and

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(c) A specified period during which all records shall be maintained at the mill site for inspection by authorized representatives of the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 26, f. 3-31-71, ef. 4-25-71; DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 43(Temp), f. & ef. 5-5-72 thru 9-1-72; DEQ 48, f. 9-20-72, ef. 10-1-72; DEQ 52, f. 4-9-73, ef. 5-1-73; DEQ 83, f. 1-30-75, ef. 2-25-75; DEQ 132, f. & ef. 4-11-77; DEQ 7-1979, f. & ef. 4-20-79; DEQ 10-1985, f. & ef. 8-8-85; AQ 12, f. & ef. 11-13-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Particleboard Manufacturing Operations 340-25-320

- (1) Truck Dump and Storage Areas:
 - (a) Every person operating or intending to operate a particleboard manufacturing plant shall cause all truck dump and storage areas holding or intended to hold raw materials to be enclosed to prevent windblown particle emissions from these areas from being deposited upon property not under the ownership of said person;
 - (b) The temporary storage of raw materials outside the regularly used areas of the plant site is prohibited unless the person who desires to temporarily store such raw materials first notifies the Department of Environmental Quality and receives written approval for said storage:
 - (A) When authorized by the Department of Environment Quality, temporary storage areas shall be operated to prevent windblown particulate emissions from being deposited upon property not under the ownership of the person storing the raw materials;
 - (B) Any temporary storage areas authorized by the Department shall not be operated in excess of six (6) months from the date they are first authorized.

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- proposes to (C) Any person who control windblown particulate emissions from truck dump storage areas other than by enclosure shall apply to the Department for authorization to utilize alternative controls. The application shall be submitted pursuant to OAR 340-20-020 to 340-20-030, and shall describe in detail the plan proposed to control windblown particulate emissions and indicate on a plot plan the nearest location of property not under ownership of the applicant.
- (2) Other Emission Sources:
 - (a) No person shall cause to be emitted particulate matter from particleboard plant sources including, but not limited to, hogs, chippers, and other material size reduction equipment, process or space ventilation systems, particle dryers, classifiers, presses, sanding machines, and materials handling systems in excess of a total from all sources within the plant site of three (3.0) pounds per 1000 square feet of particleboard produced on a 3/4 inch basis of finished product equivalent;
 - (b) Excepted from subsection (2)(a) of this rule are truck dump and storage areas, fuel burning equipment, and refuse burning equipment.
- [(3) Compliance Schedule. Not later than September 5, 1971, every person operating a particleboard manufacturing plant shall submit to the Department of Environmental Quality a proposed schedule for complying with sections (1) and (2) of this rule. The schedule shall provide for compliance with the applicable provisions at the earliest practicable date, but in no case shall final compliance be achieved by later than December 31, 1973.

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[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 26, f. 3-31-71, ef. 4-25-71; DEQ 130, f. & ef. 3-22-77

Hardboard Manufacturing Operations 340-25-325

- (1) Truck Dump and Storage Areas:
 - (a) Every person operating or intending to operate a hardboard manufacturing plant shall cause all truck dump and storage areas holding or intended to hold raw materials to be enclosed to prevent windblown particle

emissions from these areas from being deposited upon property not under the ownership of said person;

- (b) The temporary storage of raw materials outside the regularly used areas of the plant site is prohibited unless the person who desires to temporarily store such raw materials first notifies the Department of Environmental Quality and receives written approval:
 - authorized Department (A) When by the of Environmental Quality, temporary storage areas shall be operated to prévent windblown particulate emissions from being deposited upon property not under the ownership of the person storing the raw materials;
 - (B) Any temporary storage areas authorized by the Department shall not be operated in excess of six (6) months from the date they are first authorized.
- Alternative Means of Control. Any person who desires to (C) control windblown particulate emissions from truck dump and storage areas other than by enclosure shall first apply to the Department for authorization to utilize alternative controls. The application shall be 340-20-020 [to]through submitted pursuant to OAR 340-20-030, and shall describe in detail the plan proposed to control windblown particulate emissions and indicate on a plot plan the nearest location of property not under ownership of the applicant.
- Other Emission Sources:

(2)

- (a) No person shall cause to be emitted particulate matter from hardboard plant sources including, but not limited to, hogs, chippers, and other material size reduction equipment, process or space ventilation systems, particle dryers, classifiers, presses, sanding machines, and materials handling systems, in excess of a total from all sources within the plant site of one (1.0) pound per 1000 square feet of hardboard produced on a 1/8 inch basis of finished product equivalent;
- (b) Excepted from subsection (2)(a) of this rule are truck dump and storage areas, fuel burning equipment, and refuse burning equipment.
- (3) Emissions from Hardboard Tempering Ovens:
 - (a) No person shall operate any hardboard tempering oven unless all gases and vapors emitted from said oven are treated in a fume incinerator capable of raising the temperature of said gases and vapors to at least 1500° F. for 0.3 seconds or longer;

- (b) Specific operating temperatures lower than 1500° F. may be approved by the Department upon application, provided that information is supplied to show that operation of said temperatures provides sufficient treatment to prevent odors from being perceived on property not under the ownership of the person operating the hardboard plant;
- (c) In no case shall fume incinerators installed pursuant to this section be operated at temperatures less than 1000° F.;
- (d) Any person who proposes to control emissions from hardboard tempering ovens by means other than fume incineration shall apply to the Department for authorization to utilize alternative controls. The application shall be submitted pursuant to OAR 340-20-020 [to]through 340-20-030, and shall describe in detail the plan proposed to control odorous emissions and indicate on a plot plan the location of the nearest property not under ownership of the applicant.
- [(4) Compliance Schedule. No later than September 5, 1971, every person-operating a hardboard manufacturing plant shall submit to the Department of Environment Quality a proposed schedule for complying with sections (1), (2) and (3) of this rule. The schedule shall provide for compliance with the applicable provisions at the earliest practicable date, but in no case shall final-compliance be achieved by later than December 31, 1973.

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[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 26, f. 3-31-71, ef. 4-25-71; DEQ 130, f. & ef. 3-22-77

Regulations For Sulfite Pulp Mills

Definitions

340-25-350 As used in OAR 340-25-350 through 340-25-380:

- "Acid plant" <u>f- T]means the facility in which the cooking liquor is either manufactured or fortified when not associated with a recovery furnace.</u>
- (2) "Average daily emission" <u>f--T]means the t</u>otal weight of sulfur oxides emitted in each month divided by the number of days of production that month.

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- (3) "Average daily production" [- A]means air dry tons of unbleached pulp produced in a month, divided by the number of days of production in that month.
- (4) "Blow system" <u>{- Includes]means</u> the storage chest, tank, or pit to which the digester pulp is discharged following the cook.
- (5) "Continual monitoring" <u>[- S]means sampling</u> and analysis in a continuous or timed sequence, using techniques which will adequately reflect actual emission levels, ambient air levels, or concentrations on a continuous basis.
- (6) "Department" <u>[- T]means t</u>he Department of Environmental Quality.
- (7) "Other sources" [- M]mean[s] sources of sulfur oxide emissions including, but not limited to washers, washer filtrate tanks, digester dilution tanks, knotters, multiple effect evaporators, storage tanks, any operation connected with the handling of condensate liquids or storage of condensate liquids, and any vent or stack which may be a significant contributor of sulfur oxide gases other than those mentioned in emission standard limitations (OAR 340-25-360).
- (8) "Particulate matter" <u>[- A]means a</u> small, discrete mass of solid matter, including the solids dissolved or suspended in liquid droplets but not including uncombined water.
- (9) "Recovery system" [--T]means the process by which all or part of the cooking chemicals may be recovered, and cooking liquor regenerated from spent cooking liquor, including evaporation, combustion, dissolving, fortification, and storage facilities associated with the recovery cycle.
- (10) "Sulfite mill" or "mill" [- A]means a pulp mill producing cellulose pulp using a cooking liquor consisting of sulfurous acid and/or a bisulfite salt.
- (1<u>1</u>) "Sulfur oxides" <u>[- S]means s</u>ulfur dioxide, sulfur trioxide, and other sulfur oxides.
- (12) "Total reduced sulfur (TRS)" [- H]means hydrogen sulfide, mercaptans, dimethyl sulfide, dimethyl disulfide, and other organic sulfides present <u>expressed as hydrogen sulfide (H,S)</u>.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 32, f. 11-23-71, ef. 12-15-71; DEQ 15-1980, f. & ef. 5-23-80

Statement of Purpose

340-25-355 It is the policy of the Commission:

- (1) To require, in accordance with a specific program and timetable for each operating mill, the highest and best practicable treatment and control of emissions from sulfite mills through the utilization of technically feasible equipment, devices, and procedures.
- (2) To require the evaluation of improved and effective measuring techniques for sulfur oxides, total reduced sulfur, particulates, and other emissions from sulfite mills.
- (3) To require effective measuring and reporting of emissions and reporting of other data pertinent to emissions. The Department will use these data in conjunction with ambient air data and observation of conditions in the surrounding area to develop and revise emission standards and air quality standards, and to determine compliance therewith.
- (4) To encourage and assist the sulfite pulping industry to conduct a research and technological development program designed to progressively reduce sulfite mill emissions, in accordance with a definite program with specific objectives.
- (5) To establish standards deemed to be technically feasible, reasonably attainable, and necessary for the attaining of satisfactory air quality with the intent of revising the standards as new information and better technology are developed.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 32, f. 11-23-71, ef. 12-15-71; DEQ 15-1980, f. & ef. 5-23-80

Minimum Emission Standards

340-25-360

(1) Notwithstanding the specific emission limits set forth in this rule, the Department of Environmental Quality may, after notice and hearing, establish more restrictive emission limits and compliance schedules for mills located in recognized problem areas, for new mills, for mills expanding existing facilities, for mills installing substantial modifications of existing facilities which result in increased emissions; or for mills in areas where it is shown ambient air standards are exceeded.

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- (2) The total average daily emissions from a sulfite pulp mill shall not exceed 20 pounds of sulfur dioxide per ton of air dried unbleached pulp produced and in addition:
 - (a) The blow system emissions shall not exceed 0.2 pounds of sulfur dioxide per minute per ton of unbleached pulp (charged to digester) on a 15 minute average;
 - (b) Emissions from the recovery system, acid plant, and other sources shall not exceed 800 ppm of sulfur dioxide as an hourly average.
- (3) Mills of less than 110 tons of air dried unbleached pulp per day may be exempted from the limitations of section (2) of this rule provided that a minimum of 80% collection efficiency for sulphur dioxide (SO_2) is maintained.
- (4) The total emission of particulate matter from the recovery furnace stacks shall not exceed four (4) pounds per air dried ton of unbleached pulp produced.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch.<u>468 & 468A</u> Hist.: DEQ 32, f. 11-23-71, ef. 12-15-71; DEQ 15-1980, f. & ef. 5-23-80

Compliance Schedule

340-25-365 [DEQ 32, f. 11-23-71, ef. 12-15-71; Repealed by DEQ 15-1980, f. & ef. 5-23-80]

Monitoring and Reporting

340-25-370

- (1) Each mill shall maintain a Department approved detailed sampling and testing program.
- (2) The monitoring equipment shall be capable of determining compliance with the emission limits established by[these rules] OAR 340-25-350 through 340-25-380, and shall be capable of continual sampling and recording of concentrations of sulfur dioxide contaminants from the recovery system. Unless otherwise approved in writing, compliance shall be determined by [Source Test]EPA Method Six (6) which is contained in the Department [files as part of the]Source Sampling Manual.
- (3) Each mill shall sample the recovery system, blow system, and acid plant for sulfur dioxide emissions on a regularly scheduled basis.

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- (4) Each mill shall sample the recovery furnace stacks for particulate on a regularly scheduled basis. Unless otherwise approved in writing, compliance shall be determined by <u>fSource Test JEPA</u> Method Five (5) (front half only) which is contained in the Department <u>ffiles as part of the J</u>Source Sampling Manual.
- (5) Unless otherwise authorized, data shall be reported by each mill at the end of each calendar month as follows:
 - (a) Average daily emissions of sulfur dioxides expressed as pounds of sulfur dioxide per ton of pulp produced from the blow system, recovery system, and acid plant;
 - (b) The daily average and peak concentrations of sulfur dioxides expressed in pounds per hour and expressed in ppm of sulfur dioxide and the number of hours each day that the concentration exceeds 500 ppm;
 - (c) The average daily production of unbleached pulp and the maximum daily production.
- (6) Each mill shall furnish upon request of the Department, such other pertinent data as the Department may require to evaluate the mill's emission control program. Unless otherwise prescribed, each mill shall report immediately to the Department abnormal mill operations which adversely affect the emission of air contaminants.
- (7) All measurements shall be made in accordance with techniques approved by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 32, f. 11-23-71, ef. 12-15-71; DEQ 15-1980, f. & ef. 5-23-80

Special Studies

340-25-375 [DEQ 32, f. 11-23-71, ef. 12-15-71; Repealed by DEQ 15-1980, f. & ef. 5-23-80]

Exceptions

340-25-380[These rules] OAR 340-25-350 through 340-25-380 do not apply to open burning or power boiler operations conducted at sulfite pulp mills unless such boilers are an integral part of the sulfite process or recovery system.

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[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 32, f. 11-23-71, ef. 12-15-71; DEQ 15-1980, f. & ef. 5-23-80

Public Hearing

340-25-385 [DEQ 32, f. 11-23-71, ef. 12-15-71; Repealed by DEQ 15-1980, f. & ef. 5-23-80]

Notice of Construction and Submission of Plans and Specifications 340-25-390 [DEQ 32, f. 11-23-71, ef. 12-15-71; Repealed by DEQ 15-1980, f. & ef. 5-23-80]

Laterite Ore Production of Ferronickel

Statement of Purpose

340-25-405 In furtherance of the public policy of the state as set forth in ORS <u>[449.765]468A.010</u>, it is hereby declared to be the purpose of the Commission in adopting[the following rule] OAR <u>340-25-405 through 340-25-430</u> to:

- (1) Require, in accordance with a specific program and timetable, the highest and best practicable collection, treatment, and control of atmospheric pollutants through the utilization of technically feasible equipment, devices, and procedures necessary to attain and maintain desired air quality.
- (2) Establish standards which based upon presently available technology, are reasonably attainable with the intent of revising the standards as needed when new information and/or better technology are developed.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Definitions

340-25-410 As used in OAR 340-25-405 through 340-25-430:

(1) "Laterite ore" means a red residual soil containing commercially valuable amounts of nickel, about 1% to 2% by weight.

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- (2) "Dry laterite ore" means laterite ore free of uncombined water or as it is discharged from an ore drying equipment or process.
- (3) "Ferronickel" means a metallic alloy containing about 50% <u>{nickle}nickel</u> and 50% iron.
- (4) "All sources" means all equipment, structures, processes, and procedures directly related to or involved in the production of ferronickel from laterite ore excluding open storage areas and mining activities.
- (5) "Average dry laterite ore production rate" means the average amount of dry laterite ore produced per hour based upon annual production records.
- (6) "Particulate matter" means a small, discrete mass of solid or liquid matter, but not including uncombined water.
- (7) "Opacity" means the degree to which an emission reduces transmission of light or obscures the view of an object in the background.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Emission Standards

340-25-415

- (1) No source shall have visible emissions in excess of twenty (20) percent opacity, provided that where the presence of uncombined water is the only reason for failure of an emission to meet this requirement, such requirement shall not apply.
- (2) The total combined emission of particulate matter from all sources shall not exceed 3.5 pounds per ton of dry laterite ore produced, based upon the average dry laterite ore production rate.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

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Highest and Best Practicable Treatment and Control Required

340-25-420 Notwithstanding the specific emission limits set forth in OAR 340-25-415, the highest and best practicable treatment and control currently available shall in every case be provided.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Compliance Schedule

340-25-425 [Compliance with the specific emission standards set forth in OAR 340-25-415 shall be accomplished on or before July 1, 1974, in accordance with an approved program and schedule.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Monitoring and Reporting 340-25-430

- (1) Emission testing shall be conducted by the industry using Department approved methods to determine compliance with this rule.
- (2) Abnormal operations which adversely affect the emission of air contaminants shall be reported to the Department within 1 hour of the occurrence, or as soon as is reasonably possible.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR_340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Emission Standards and Procedural Requirements for Hazardous Air Contaminants

Policy

340-25-450 The Commission finds and declares that certain air contaminants for which there is no ambient air standard may cause or contribute to an identifiable and significant increase in mortality or to an increase in serious irreversible or incapacitating reversible illness, and are therefore considered to hazardous air contaminants. Air contaminants currently be considered to be in this category are asbestos, beryllium, and mercury. Additional air contaminants may be added to this category provided that no ambient air standard exists for the contaminant, and evidence is presented which demonstrates that the particular contaminant may be considered as hazardous. It is hereby declared the policy of the Department that the standards contained [herein] in OAR 340-25-450 through 340-25-485 and applicable to operators are to be minimum standards, and as technology advances, conditions warrant, and Department or regional authority rules require or permit, more stringent standards shall be applied.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 96, f. 9-2-75, ef. 9-25-75; DEQ 9-1988, f. 5-19-88, cert. ef. 6-1-88 (and corrected 6-3-88)

DEFINITIONS

340-25-455 As used in[this-rule, and unless otherwise required by context] OAR 340-25-450 through 340-25-485:

- (1) "Adequately wet" means to sufficiently mix or penetrate asbestos-containing material with liquid to prevent the release of particulate asbestos materials. The absence of visible emissions is not sufficient evidence of being adequately wet.
- (2) "Asbestos" means the asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonitegrunerite (amosite), anthophyllite, actinolite and tremolite."
- (3) "Asbestos-containing waste material" means any waste which contains <u>{mill}asbestos</u> tailings or any commercial asbestos, and is generated by a source subject to <u>{the provisions of this subpart}OAR 340-25-450 through 340-25-469.{, or friable asbestos material} This term {including}includes, but not limited to, {asbestos mill tailings, }filters from control devices{ asbestos waste, friable asbestos waste material}, asbestos abatement project waste, and bags or containers that previously contained commercial asbestos.</u>

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(4) "Asbestos abatement project" means any demolition, renovation, repair, construction or maintenance activity of any public or private facility that involves the repair, enclosure, encapsulation, removal, salvage, handling or disposal of any material with the potential of releasing asbestos fibers from asbestos-containing material into the air." NOTE: An asbestos abatement project is not considered to be

a source under OAR 340-25-460(2) through (6). Emergency fire fighting is not an asbestos abatement project.

- (5) "Asbestos manufacturing operation" means the combining of commercial asbestos, or in the case of woven friction products, the combining of textiles containing commercial asbestos with any other material(s) including commercial asbestos, and the processing of this combination into a product as specified in[rule] OAR 340-25-465(3).
- (6) "Asbestos-containing material" means asbestos or any material containing more than one percent (1%) asbestos by weight, including particulate asbestos material.
- (7) "Asbestos mill" means any facility engaged in the conversion or any intermediate step in the conversion of asbestos ore into commercial asbestos.
- (8) "Asbestos tailings" mean any solid waste product of asbestos mining or milling operations which contains asbestos.
- (9) "Beryllium" means the element beryllium. Where weight or concentrations are specified in[these rules] OAR 340-25-470 <u>and 340-25-475</u>, such weights or concentrations apply to beryllium only, excluding any associated elements.
- (10) "Beryllium alloy" means any metal to which beryllium has been added in order to increase its beryllium content, and which contains more than 0.1 percent beryllium by weight.
- (11) "Beryllium containing waste" means any material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to [these rules]OAR 340-25-450 through 340-25-485.
- (12) "Beryllium ore" means any naturally occurring material mined or gathered for its beryllium content.
- (13) "Commercial asbestos" means any variety of asbestos which is produced by extracting asbestos from asbestos ore.
- (14) "Commission" means the Environmental Quality Commission.
- (15) "Demolition" means the wrecking or removal of any loadsupporting structural member of a facility together with any related handling operations or the intentional burning of any facility.
- (16) "Department" means the Department of Environmental Quality.
- (17) "Director" means the Director of the Department or regional authority and authorized deputies or officers.

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- (18) "Fabricating" means any processing (e.g., cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.
- (19) "Facility" means all or part of any public or private building, structure, installation, equipment, or vehicle or vessel, including but not limited to ships.
- (20) "Friable asbestos material" means any asbestos-containing material that hand pressure can crumble, pulverize or reduce to powder when dry.
- (21) "Fugitive emissions" means any emissions which escape from a point or area that is not identifiable as a stack, vent, duct or equivalent opening.
- (22) "Hazardous air contaminant" means any air contaminant considered by the Department or Commission to cause or contribute to an identifiable and significant increase in mortality or to an increase in serious irreversible or incapacitating reversible illness and for which no ambient air standard exists.
- (23) "HEPA filter" means a high efficiency particulate air filter capable of filtering 0.3 micron particles with 99.97 percent efficiency.
- (24) "Inactive waste disposal site" means any disposal site where the operator has allowed the Department's solid waste permit to lapse, has gone out of business, or no longer receives asbestos-containing waste.
- (25) "Interim storage of asbestos containing material" means the storage of asbestos-containing waste material which has been placed in a container outside a regulated area until transported to an authorized landfill.
- (26) "Mercury" means the element mercury, excluding any associated elements and includes mercury in particulates, vapors, aerosols, and compounds.
- (27) "Mercury ore" means any mineral mined specifically for its mercury content.
- (28) "Mercury ore processing facility" means a facility processing mercury ore to obtain mercury.
- (29) "Mercury chlor-alkali cell" means a device which is basically composed of an electrolyzer section and a denuder (decomposer) section, and utilizes mercury to produce chlorine gas, hydrogen gas, and alkali metal hydroxide.

- (30) "Nonfriable asbestos-containing material" means any material containing more than one percent (1%) asbestos as determined by weight that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- (31) "Particulate asbestos material" means any finely divided particles of asbestos material.
- (32) "Person" means any individual, corporation, association, firm, partnership, joint stock company, public and municipal corporation, political sub-division, the state and any agency thereof, and the federal government and any agency thereof.
- (33) "Propellant" means a fuel and oxidizer physically or chemically combined, containing beryllium or beryllium compounds, which undergoes combustion to provide rocket propulsion.
- (34) "Propellant plant" means any facility engaged in the mixing, casting, or machining of propellant.
- (35) "Regional authority" means any regional air quality control authority established under the provisions of ORS [468.505]468A.105.
- (36) "Renovation" means altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or removed are excluded.
- (37) "Roadways" mean surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.
- (38) "Small-scale asbestos abatement project" means any asbestos abatement project which meets the definition given in OAR 340-33-020(17).
- (39) "Small scale, short duration renovating and maintenance activity" means an activity which meets the definition given in OAR 340-33-020(18).
- (40) "Startup" means commencement of operation of a new or modified source resulting in release of contaminants to the ambient air.
- (41) "Structural member" means any load-supporting member of a facility, such as beams and load-supporting walls; or any non-supporting member, such as ceilings and non-loadsupporting walls.
- (42) "Waste generator" means any person performing an asbestos abatement project or any owner or operator of a source covered by this section whose act or process generates asbestos-containing waste material.
- (43) "Waste shipment record" means the shipment document, required to be originated and signed by the waste generator; used to track and substantiate the disposition of asbestos-containing waste material.

Stat. Auth.: ORS Ch. 468[.020] & 468[.893]A Hist.: DEQ 96, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; DEQ 9-1988, f. 5-19-88, cert. ef. 6-1-88 (and corrected 6-3-88); DEQ 4-1990, f. & cert. ef. 2-7-90 (and corrected 5-21-90 & 7-8-91); AQ 11, f. & ef. 10-7-91

GENERAL PROVISIONS

340-25-460

- (1) Applicability. [The provisions of these rules] OAR 340-25-450 through 340-25-485 shall apply to any source which emits air contaminants for which a hazardous air contaminant standard is prescribed. Compliance with[-the-provisions of these rules] OAR 340-25-450 through 340-25-485 shall not relieve the source from compliance with other applicable rules of the Oregon Administrative Rules, Chapter 340, or with applicable provisions of the Oregon Clean Air Implementation Plan.
- (2) Prohibited activities:
 - (a) No person shall construct, install, establish, develop or operate any source of emissions subject to[these rules] OAR 340-25-450 through 340-25-485 without first obtaining an Air Contaminant Discharge Permit in accordance with OAR 340-20-140 through 340-20-185.
 - (b) No person shall modify any existing source such that emissions of contaminants subject to { these-rules} OAR <u>340-25-450 through 340-25-485</u> are significantly increased without first applying for and obtaining a modified permit.
 - (c) No person subject to the provisions of the[se] emission standards <u>contained in OAR 340-25-450 through 340-25-485</u> shall fail to provide reports or report revisions as required in[these rules] OAR 340-25-450 through 340-25-485.
- (3) Application for approval of construction or modification. All applications for construction or modification shall comply with[the requirements of] OAR 340-20-140 through OAR 340-20-185 and[the requirements of the standards set forth in these rules] OAR 340-25-450 through 340-25-485.
- (4) Notification of startup. Notwithstanding[<u>the requirements</u> of rules] OAR 340-20-140 through OAR 340-20-185, any person owning or operating a new source of emissions subject to these emission standards shall furnish the Department written notification as follows:
 - (a) Notification of the anticipated date of startup of the source not more than 60 days nor less than 30 days prior to the anticipated date.
 - (b) Notification of the actual startup date of the source within 15 days after the actual date.

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- (5) Source reporting and approval request. Any person operating any existing source, or any new source for which a standard is prescribed in these rules which had an initial startup which preceded the effective date of these rules shall provide the following information to the Department within 90 days of the effective date of these rules:
 - (a) Name and address of the owner or operator.
 - Location of the source. (b)-
 - -A brief description of the source, including nature, (c) size, design, method of operations, design capacity, and identification of emission points of hazardous contaminants.
 - The average weight per month of materials being (d) processed by the source and percentage by weight of hazardous contaminants contained in the processed materials, including yearly information as available.
 - A description of existing control equipment for each (e)--emission point, including primary and secondary control devices and estimated control efficiency of each control-device.]
- $\frac{(6)}{(5)}$

(a)

Source emission tests and ambient air monitoring: Emission tests and monitoring shall be conducted using methods set forth in [40 CFR, Part 61, Appendix B. The methods described in 40 CFR, Part 61, Appendix B, are adopted by reference and made a part of these rules. Copies of these methods are on file at the Department of Environmental Quality]the Department's Source Sampling Manual.

- At the request of the Department, any source subject to (b) standards set forth in [these rules] OAR 340-25-450 through 340-25-485 may be required to provide emission testing facilities as follows:
 - Sampling ports, safe sampling platforms, and (A) access to sampling platforms adequate for test methods applicable to such source.
 - (B)
- Utilities for sampling and testing equipment. (C) Emission tests may be deferred if the Department determines that the source is meeting the standard asf proposed in these rules<u>} required</u> by OAR 340-25-450 If such a deferral of emission <u>through 340-25-485</u>. tests is requested, information supporting the request shall be submitted with the request for written

approval of operation. Approval of a deferral of emission tests shall not in any way prohibit the Department from canceling the deferral if further information indicates that such testing may be necessary to insure compliance with [these rules] OAR 340-25-450 through 340-25-485.

[(7)]**(6)**

Delegation of authority. The Commission may, when any regional authority requests and provides evidence demonstrating its capability to carry out the provisions of [these rules] OAR 340-25-450 through 340-25-485 relating to hazardous contaminants, authorize and confer jurisdiction within its boundary until such authority and jurisdiction shall be withdrawn for cause by the Commission.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 96, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; DEQ 19-1986, f. & ef. 11-7-86; DEQ 9-1988, f. 5-19-88, cert. ef. 6-1-88 (and corrected 6-3-88); DEQ 24-1989, f. & cert. ef. 10-26-89; AQ 11, f. & ef. 10-7-91

EMISSION STANDARDS AND PROCEDURAL REQUIREMENTS FOR ASBESTOS 340-25-465

- (1) Emission standard for asbestos mills. No person shall cause to be discharged into the atmosphere any visible emissions from any asbestos milling operation, including fugitive emissions, except as provided under OAR 340-25-468(14) Air Cleaning. For purposes of <u>{ these} this</u> rule{s}, the presence of uncombined water in the emission plume shall not be cause for failure to meet the visible emission requirement. Outside storage of asbestos materials is not considered a part of an asbestos mill. Each owner or operator of an asbestos mill shall meet the following requirements:
 - (a) Monitor each potential source of asbestos emissions from any part of the mill facility, including air cleaning devices, process equipment, and buildings that house equipment for material processing and handling, at least once each day, during daylight hours, for visible emissions to the outside air during periods of operations. The monitoring shall be by visual observation of at least 15 seconds duration per source of emissions.

- (b) Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunction including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected on a weekly basis according to this <u>fparagraph}subsection</u>, submit to the Department, revise as necessary, and implement a written maintenance plan to include, at a minimum, the following:
 - (A) Maintenance schedule.
 - (B) Recordkeeping plan.
- (c) Maintain records of the results of visible emissions monitoring and air cleaning device inspections using a format approved by the Department which includes the following:
 - (A) Date and time of each inspection.
 - (B) Presence or absence of visible emissions.
 - (C) Condition of fabric filters, including presence of any tears, holes, and abrasions.
 - (D) Presence of dust deposits on clean side of fabric filters.
 - (E) Brief description of corrective actions taken, including date and time.
 - (F) Daily hours of operation for each air cleaning device.
- (d) Furnish upon request, and make available at the affected facility during normal business hours for inspection by the Department, all records required under this section.
- (e) Retain a copy of all monitoring and inspection records for at least two years.
- (f) Submit a copy of visible emission monitoring records to the Department quarterly. The quarterly reports shall be postmarked by the 30th day following the end of the calendar quarter.
- (g) Asbestos<u>-containing</u> waste <u>material</u> produced by any asbestos milling operation will be disposed of according to OAR 340-25-469.
- (2) Roadways and Parking Lots. No person may construct or maintain a roadway with asbestos tailings or asbestoscontaining waste material on that roadway, unless (for asbestos tailings):
 - (a) It is a temporary roadway on an area of asbestos ore deposits (asbestos mine); or

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- (b) It is a temporary roadway at an active asbestos mill site and is encapsulated with a resinous or bituminous binder. The encapsulated road surface must be maintained at a minimum frequency of once per year to prevent dust emissions; or
- (c) It is encapsulated in asphalt concrete meeting the specifications contained in section 401 of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-85, 1985, or their equivalent.
- Manufacturing. No person shall cause to be discharged into the atmosphere any visible emissions, except as provided in OAR 340-25-468(14) Air Cleaning, from any building or structure in which manufacturing operations utilizing commercial asbestos are conducted, or directly from any such manufacturing operations if they are conducted outside buildings or structures, or from any other fugitive emissions. All asbestos-containing waste material produced by any manufacturing operation shall be disposed of according to OAR 340-25-469. Visible emissions from boilers or other producing not emissions directly points from the manufacturing operation; and having no possible asbestos material in the exhaust gases, shall not be considered for purposes of this rule. The presence of uncombined water in the exhaust plume shall not be cause for failure to meet the visible emission requirements.
 - (a) Applicability. Manufacturing operations considered for purposes of <u>[these] this</u> rule[s] are as follows:
 - (A) The manufacture of cloth, cord, wicks, tubing, tape, twine, rope, thread, yarn, roving, lap, or other textile materials.
 - (B) The manufacture of cement products.
 - (C) The manufacture of fire proofing and insulating materials.
 - (D) The manufacture of friction products.
 - (E) The manufacture of paper, millboard, and felt.
 - (F) The manufacture of floor tile.
 - (G) The manufacture of paints, coatings, caulks, adhesives, or sealants.
 - (H) The manufacture of plastics and rubber materials.
 - (I) The manufacture of chlorine, using asbestos diaphragm technology.
 - (J) The manufacture of shotgun shell wads.
 - (K) The manufacture of asphalt concrete.

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- (L) Any other manufacturing operation which results or may result in the release of asbestos material to the ambient air.
- (b) Monitor each potential source of asbestos emissions from any part of the manufacturing facility, including air cleaning devices, process equipment, and buildings housing material processing and handling equipment, at least once each day during daylight hours for visible emissions to the outside air during periods of operation. The monitoring shall be visual observation of at least 15 seconds.
- (c) Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunctions, including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected on a weekly basis according to this <u>fparagraph}subsection</u>, submit to the Department, revise as necessary, and implement a written maintenance plan to include, at a minimum, the following:
 - (A) Maintenance schedule.
 - (B) Recordkeeping plan.
- (d) Maintain records of the results of visible emission monitoring and air cleaning device inspections using a format approved by the Department which includes the following:
 - (A) Date and time of each inspection.
 - (B) Presence or absence of visible emissions.
 - (C) Condition of fabric filters, including presence of any tears, holes and abrasions.
 - (D) Presence of dust deposits on clean side of fabric filters.
 - (E) Brief description of corrective actions taken, including date and time.
 - (F) Daily hours of operation for each air cleaning device.
- (e) Furnish upon request, and make available at the affected facility during normal business hours for inspection by the Department, all records required under this section.
- (f) Retain a copy of all monitoring and inspection records for at least two years.

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- (g) Submit quarterly a copy of the visible emission monitoring records to the Department if visible emissions occurred during the report period. Quarterly reports shall be postmarked by the 30th day following the end of the calendar quarter.
- (h) Asbestos<u>-containing</u> waste <u>material</u> produced by any asbestos milling operation shall be disposed of according to OAR 340-25-469.

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 96, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; AQ 11, f. & ef. 10-7-91

ASBESTOS ABATEMENT PROJECTS 340-25-466

- (1) Any person who conducts an asbestos abatement project shall comply with OAR 340-25-467 and OAR 340-25-468(1) through (11). The following asbestos abatement projects are exempt from <u>[these requirements]OAR 340-25-467 and OAR 340-25-468(1)</u> <u>through (11)</u>:
 - (a) Asbestos abatement conducted in a private residence which is occupied by the owner and the owner-occupant performs the asbestos abatement.
 - (b) Removal of nonfriable asbestos-containing materials that are not shattered, crumbled, pulverized or reduced to dust until disposed of in an authorized disposal site. This exemption shall end whenever the asbestoscontaining material becomes friable and releases asbestos fibers into the environment.
 - (c) Removal of less than three square feet or three linear feet of asbestos-containing material provided that the removal of asbestos is not the primary objective and methods of removal are in compliance with OAR 437 Division 3 "Construction" (29 CFR 1926.58 Appendix G). An asbestos abatement project shall not be subdivided into smaller sized units in order to qualify for this exemption.
 - (d) Removal of asbestos-containing materials which are sealed from the atmosphere by a rigid casing, provided that the casing is not broken or otherwise altered such that asbestos fibers could be released during removal, handling, and transport to an authorized disposal site.
- (2) Open storage of friable asbestos-containing material or asbestos-containing waste material is prohibited.
- (3) Open accumulation of friable asbestos-containing material or asbestos-containing waste material is prohibited.

NOTE: The requirements and jurisdiction of the Department of Insurance and Finance, Oregon Occupational Safety and Health Division and any other state agency are not affected by [these rules] OAR 340-25-450 through 340-25-485.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: AQ 11, f. & ef. 10-7-91

NOTIFICATIONS REQUIREMENTS

340-25-467 Written notification of any asbestos abatement project shall be provided to the Department on a Department form. The notification must be submitted by the facility owner or operator or by the contractor in accordance with one of the procedures specified in section (1) or (2)[, below] of this rule except as provided in sections $\frac{f(3), f(4), (5)}{f(3), f(4), (5)}$ and (6)

- (1) Submit the notifications as specified in subsection (c) below and the project notification fee to the Department at least ten days before beginning any asbestos abatement project.
 - (a) The project notification fee shall be:
 - (A) \$25 for each small-scale asbestos abatement project except for small-scale projects in residential buildings described in OAR 340-25-467(4).
 - (B) \$50 for each project greater than a small-scale asbestos abatement project and less than 260 linear feet or 160 square feet.
 - (C) \$200 for each project greater than 260 linear feet or 160 square feet, and less than 2,600 linear feet or 1,600 square feet.
 - (D) \$500 for each project greater than 2,600 linear feet or 1,600 square feet, and less than 26,000 linear feet or 16,000 square feet.
 - (E) \$750 for each project greater than 26,000 linear feet or 16,000 square feet, and less than 260,000 linear feet or 160,000 square feet.
 - (F) \$1,000 for each project greater than 260,000 linear feet or 160,000 square feet.
 - (b) Project notification fees shall be payable with the completed project notification form. No notification will be considered to have occurred until the notification fee is submitted.

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- (c) The ten day notification requirement in (1) above may be temporarily waived in emergencies which directly affect human life, health, and property. This includes:
 - (A) Emergencies where there is an imminent threat of loss of life or severe injury; or
 - (B) Emergencies where the public is exposed to airborne asbestos fibers; or
 - (C) Emergencies where significant property damage will occur if repairs are not made.
- (d) The ten day notification requirement in (1) above may be temporarily waived for asbestos abatement projects which were not planned, resulted from unexpected events, and which if not immediately performed will cause damage to equipment or impose unreasonable financial burden. This includes the non-routine failure of equipment.
- (e) In either (c) or (d) above persons responsible for such asbestos abatement projects shall notify the Department by telephone prior to commencing work, or by 9_am of the next working day if the work was performed on a weekend or holiday. In any case notification as specified in (3) below and the appropriate fee shall be submitted to the Department within three days of commencing emergency or unexpected event asbestos abatement projects.
- (f) The Department shall be notified prior to any changes in the scheduled starting or completion dates or other substantial changes or the notification will be void.
- (g) If an asbestos project, equal to or greater than 2,600 linear feet or 1,600 square feet continues for more than one year, a new notification and fee shall be submitted annually thereafter until the project is complete.
- (2) For small-scale asbestos abatement projects conducted at one or more facilities by a single contractor or a single facility owner with centrally controlled asbestos operations and maintenance the notification may be submitted as follows:
 - (a) Establish eligibility for use of this notification procedure with the Department prior to use;
 - (b) Maintain on file with the Department a general asbestos abatement plan. The plan shall contain the information specified in subsections (3)(a) through (3)(i) <u>(below, of this rule</u> to the extent possible;
 - (c) Provide to the Department a summary report of all small-scale asbestos abatement projects conducted in the previous three months by the 15th day of the month

following the end of the calendar quarter. The summary report shall include the information specified in subsections (3)(i) through (3)(m) [below]of this rule for each project, a description of any significant variations from the general asbestos abatement plan; and a description of asbestos abatement projects anticipated for the next quarter;

- (d) Provide to the Department, upon request, a list of asbestos abatement projects which are scheduled or are being conducted at the time of the request;
- (e) Submit a project notification fee of \$200 per year prior to use of this notification procedure and annually thereafter while this procedure is in use;
- (f) Failure to provide payment for use of this notification procedure shall void the general asbestos abatement plan and each subsequent abatement project shall be individually assessed a project notification fee.
- The following information shall be provided for each notification:
 - (a) Name and address of person conducting asbestos abatement.
 - (b) Contractor's Oregon asbestos abatement license number, if applicable, and certification number of the supervisor for full-scale asbestos abatement or certification number of the trained worker for a project which does not have a certified supervisor.
 - (c) Method of asbestos abatement to be employed.
 - (d) Procedures to be employed to insure compliance with OAR 340-25-468 and <u>340-25</u>-469.
 - (e) Names, addresses, and phone numbers of waste transporters.
 - (f) Name and address or location of the waste disposal site where the asbestos-containing waste material will be deposited.
 - (g) Description of asbestos disposal procedure.
 - (h) Description of building, structure, facility, installation, vehicle, or vessel to be demolished or renovated, including:
 - (A) The age, present and prior use of the facility;
 - (B) Address or location where the asbestos abatement project is to be accomplished.
 - (i) Facility owner's or operator's name, address and phone number.
 - (j) Scheduled starting and completion dates of asbestos abatement work.

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- (k) Description of the asbestos type, approximate asbestos content (percent), and location of the asbestoscontaining material.
- (1) Amount of asbestos to be abated: linear feet, square feet, thickness.
- (m) For facilities described in OAR 340-25-468(5) provide the name, title and authority of the State or local government official who ordered the demolition, date the order was issued, and the date demolition is to begin.
- (n) Any other information requested on the Department form.
- No project notification fee shall be assessed for asbestos (4)abatement projects conducted in the following residential buildings: site-built homes, modular homes constructed off site, condominium units, mobile homes, and duplexes or other multi-unit residential buildings consisting of four units or Project notification for a full-scale asbestos less. abatement project, as defined in OAR 340-33-020(14), in any of these residential buildings shall otherwise be in accordance with section (1) of this rule. Project notification for a small-scale asbestos abatement project, as defined in OAR 340-33-020(17), in any of these residential buildings is not required.
- (5) The project notification fees specified in this section shall be increased by 50% when an asbestos abatement project is commenced without filing of a project notification and/or submittal of a notification fee or when notification of less than ten days is provided under subsection (1)(c) of this rule.
- (6) The Director may waive part or all of a project notification fee. Requests for waiver of fees shall be made in writing to the Director, on a case-by-case basis, and be based upon financial hardship. Applicants for waivers must describe the reason for the request and certify financial hardship.
- (7) Pursuant to ORS [468.535]468A.135, a regional authority may adopt project notification fees for asbestos abatement projects in different amounts than are set forth in this rule. The fees shall be based upon the costs of the regional authority in carrying out the delegated asbestos program. The regional authority may collect, retain, and expend such project notification fees for asbestos abatement projects within its jurisdiction.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: AQ 11, f. & ef. 10-7-91

WORK PRACTICES AND PROCEDURES

340-25-468 The following procedures shall be employed during an asbestos abatement project to prevent emissions of particulate asbestos material into the ambient air:

- (1) Remove asbestos-containing materials before any wrecking or dismantling that would break up the materials or preclude access to the materials for subsequent removal. However, asbestos-containing materials need not be removed before demolition if:
 - (a) They are on a facility component that is encased in concrete or other similar material;
 - (b) They were not discovered before demolition and cannot be removed because of unsafe conditions as a result of the demolition. Upon discovery the owner or operator performing the demolition shall:
 - (A) Stop demolition work immediately.
 - (B) Notify the Department immediately of the occurrence.
 - (C) Keep the exposed asbestos-containing materials and any asbestos-contaminated waste material adequately wet at all times until a licensed asbestos abatement contractor begins removal activities.
 - (D) Have the licensed asbestos abatement contractor remove and dispose of the asbestos-containing waste material.
 - (c) These materials are adequately wetted whenever exposed during demolition.
 - Asbestos-containing materials shall be adequately wetted when they are being removed. In renovation, maintenance, repair, and construction operations, where wetting would unavoidably damage equipment or is incompatible with specialized work practices, or presents a safety hazard, adequate wetting is not required if the owner or operator:
 - (a) Obtains prior written approval from the Department for dry removal of asbestos-containing material;
 - (b) Keeps a copy of the Department's written approval available for inspection at the work site;
 - (c) Adequately wraps or encloses any asbestos-containing material during handling to avoid releasing fibers;
 - (d) Uses a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the asbestos abatement project.
- (3) When a facility component covered or coated with asbestoscontaining materials is being taken out of the facility as units or in sections:

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- asbestos-containing materials (a) Adequately wet any exposed during cutting or disjointing operation;
- Carefully lower the units or sections to ground level, (b) not dropping them or throwing them;
- Asbestos-containing materials do not need to be removed (C) from large facility components such as reactor vessels, large tanks, steam generators, but excluding beams if the following requirements are met:
 - (A) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the regulated asbestos-containing material; and
 - The component is encased in leak-tight wrapping; (B) and
 - (C) The leak-tight wrapping is labeled according to OAR 340-25-469(2)(b) during all loading and unloading operations and during storage.
- For asbestos-containing materials being removed or stripped:
 - Adequately wet the materials to ensure that they remain (a) wet until they are disposed of in accordance with OAR 340-25-469;
 - (b) Carefully lower the materials to the floor, not dropping or throwing them;
 - Transport the materials to the ground via dust-tight (C) chutes or containers if they have been removed or stripped above ground level and were not removed as units or in sections.
 - If a facility is being demolished under an order of the State or a local governmental agency, issued because the facility is structurally unsound and in danger of imminent collapse, the requirements of section (1), (2), (3), (4), and (6) of this rule shall not apply, provided that the portion of the facility that contains asbestos-containing materials is adequately wetted during the wrecking operation.
- (6) Before a facility is demolished by intentional burning, all asbestos-containing material shall be removed and disposed of in accordance with OAR 340-25-466 through -469.
- None of the operations in sections (1) through (4) of this (7) rule shall cause any visible emissions. Any local exhaust ventilation and collection system or other vacuuming equipment used during an asbestos abatement project, shall be equipped with a HEPA filter or other filter of equal or greater collection efficiency.

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- (8) Contractors licensed and workers certified to conduct only small-scale asbestos abatement projects under OAR 340-33-040 and 340-33-050 respectively may use only those work practices and engineering controls specified by OAR 437 Division 3 "Construction" (29 CFR 1926.58 Appendix G).
- The Director may approve, on a case-by-case basis, requests (9) use an alternative to a public health protection to requirement as provided by [these] this rule [s] for an asbestos abatement project. The contractor or facility owner or operator must submit in advance a written description of which demonstrates the alternative procedure to the Director's satisfaction that the proposed alternative procedure provides public health protection equivalent to the protection that would be provided by the specific provision, or that such level of protection cannot be obtained for the asbestos abatement project.
 - Final Air Clearance Sampling Requirements apply to projects involving more than 160 square feet or 260 linear feet of asbestos-containing material. Before a containment around such an area is removed, the person(s), contractor or facility owner/operator performing the abatement shall document that the air inside the containment has no more than 0.01 fibers per cubic centimeter of air. The air sample(s) collected shall not exceed 0.01 fibers per cubic centimeter of air. The Department may grant a waiver to this section or exceptions to the following requirements upon written request.
 - (a) The air clearance samples shall be performed and analyzed by a party who is National Institute of Occupational Safety and Health (NIOSH) 582 certified and financially independent from the person(s) conducting the asbestos abatement project.
 - (b) Before final air clearance sampling is performed the following shall be completed:
 - (A) All visible asbestos-containing debris shall be removed according to the requirements of this section;
 - (B) The air and surfaces within the containment shall be sprayed with an encapsulant;
 - (C) Air sampling may commence when the encapsulant has settled sufficiently so that the filter of the sample is not clogged by airborne encapsulant;
 - (D) Air filtration units shall remain on during the air monitoring period.
 - (c) Air clearance sampling inside containment areas shall be aggressive and comply with the following procedures:

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- (A) Immediately prior to starting the sampling pumps, direct exhaust from a minimum one horse power forced air blower against all walls, ceilings, floors, ledges, and other surfaces in the containment.
- (B) Then place stationary fans in locations which will not interfere with air monitoring equipment and directed toward the ceiling. Use one fan per 10,000 cubic feet of room space.
- (C) Start sampling pumps and sample an adequate volume of air to detect concentrations of 0.01 fibers of asbestos per cubic centimeter according to the U.S. National Institute of Occupational Safety and Health, (NIOSH) 7400 method.
- (D) When sampling is completed turn off the pump and then the fan(s).
- (E) As an alternative to meeting the requirements of (A) through (D) of this subsection, air clearance sample analysis may be performed according to Transmission Electron Microscopy Analytical Methods prescribed by 40 CFR 763.99, Appendix A to Subpart E.
- (d) The person[(s)] performing asbestos abatement projects requiring air clearance sampling shall submit <u>the</u> <u>clearance results</u> to the Department <u>on a Department</u> <u>form.[,]</u> The clearance results <u>must be received by the</u> <u>Department</u> within 30 days after <u>[the monitoring</u> <u>procedures were performed]the completion date of the</u> <u>asbestos abatement project</u>.
- Related Work Practices and Controls Work practices and (11)engineering controls employed for asbestos abatement projects by contractors and/or workers who are not otherwise subject to the requirements of the Oregon Department of Insurance and Finance, Oregon Occupational Safety and Health Division shall with the subsections of OAR 437 comply Division 3 "Construction" (29 CFR 1926.58 Appendix G) which limit the release of asbestos-containing material or exposure of other persons. As used in this subsection the term employer shall mean the operator of the asbestos abatement project and the term employee shall mean any other person.
- (12) Spraying:
 - (a) No person shall cause to be discharged into the atmosphere any visible emissions from any spray-on application of materials containing more than one (1%) percent asbestos on a dry weight basis used to insulate or fireproof equipment or machinery, except as provided

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in Air Cleaning section (14) of this rule. Spray-on materials used to insulate or fireproof buildings, structures, pipes, and conduits shall contain less than one (1%) percent asbestos on a dry weight basis. In the case of any city or area of local jurisdiction having ordinances or regulations for spray application materials more stringent than those in this section, the provisions of such ordinances or regulations shall apply.

- (b) Twenty days before any person sprays asbestos materials to insulate or fireproof buildings, structures, pipes, conduits, equipment, or machinery, that person shall notify the Department in writing before the spraying operation begins. The notification shall contain the following:
 - (A) Name and address of person intending to conduct the spraying operation.
 - (B) Address or location of the spraying operation.
 - (C) The name and address of the owner of the facility being sprayed.
- (c) The spray-on application of materials in which the asbestos fibers are encapsulated with a bituminous or resinous binder during spraying and which are not friable after drying is exempted from the requirements of subsections (8)(a) and (b) of this rule.
- (13) Options for air cleaning. Rather than meet the no visible emissions requirements of OAR 340-25-465(1) and (3), owners and operators may elect to use methods specified in section (14) of this rule[, below].
- (14) Air cleaning. All persons electing to use air cleaning methods rather than comply with the no visible emission requirements must meet one of the provisions of (a) through (d) and all of the requirements specified sections (e), (f)
 - and (g) below:
 - (a) Fabric filter collection devices must be used, except as provided in subsections (b) and (c) of this section. Such devices must be operated at a pressure drop of no more than four inches (10.16 cm) water gauge as measured across the filter fabric. The air flow permeability, as determined by ASTM Method D737-75, must not exceed 30 ft.³/min./ft.² (9 m³/min./m²) for woven fabrics or 35 ft.³/min.ft.² (11 m³/min./m²) for felted fabrics with the exception that airflow permeability of 40 ft.³/min./ft.² (12 m³/min./m²) for woven and 45 ft.³/min./ft.² (14 m³/min./m²) for felted fabrics shall be allowed for filtering air emissions from asbestos ore dryers. Each square yard of felted

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	fabric must weigh at least 14 ounces (475 grams per
	square meter) and be at least one-sixteenth (1/16) inch
	(1.6mm) thick throughout. Any synthetic fabrics used
	must not contain fill yarn other than that which is
	spun.
(b)	If the use of fabric filters creates a fire or
	explosion hazard, the Department may authorize the use
	of wet collectors designed to operate with a unit
	contacting energy of at least 40 inches (101.6 cm) of
	water gauge pressure.
(c)	If High Efficiency Particulate Air (HEPA) filters are
	used to control emissions the certified efficiency
	shall be at least 99.97 percent for particles 0.3
	microns or greater.
(d)	The Department may authorize the use of filtering
	equipment other than that described in subsections
	(14)(a), (b) , or (c) of this rule if such filtering
	equipment is satisfactorily demonstrated to provide
	filtering of asbestos material equivalent to that of
	the described equipment.
(e)	All air cleaning devices authorized by this section
	must be properly installed, operated, and maintained.
	Devices to bypass the air cleaning equipment may be
	used only during upset and emergency conditions, and
	then only for such time as is necessary to shut down
	the operation generating the particulate asbestos
	material.
[(1)	All persons operating any existing source using air
	cleaning devices shall, within 90 days of the effective
	date of these rules, provide the following information
	to the Department:
	(A) A description of the emission control equipment
	used for each process. (B) If a fabric is utilized, the following
	(B) information shall be reported:
	(i) The pressure drop across the fabric
	filter in inches, water gauge and the
	airflow permeability in ft. ³ /min./ft. ²
	$\frac{4\pi^2}{min./m^2}$
	(ii) For woven fabrics, indicate whether the
	fill yarn is spun-or not spun.
	(iii) For felted fabrics, the density in
	ounces/yard³ (gms/m³) and the minimum
	thickness in inches (centimeters).
	(C) If a wet collector is used the unit contact
	energy shall be reported in inches of pressure,
	water gauge.]
	ander Annae.

f(g)](f) For fabric filters collection devices installed after January 10, 1989, provide for easy inspection for faulty bags.

- (15) Fabricating. No person shall cause to be discharged into the atmosphere any visible emissions including fugitive emissions, except as provided in Air Cleaning section (14) of this rule, from any fabricating operations including the following:
 - (a) Applicability. This section applies to the following fabricating operations using commercial asbestos:
 - (A) The fabrication of cement building products.
 - (B) The fabrication of friction products, except those operations that primarily install asbestos friction materials on motor vehicles.
 - (C) The fabrication of cement or silicate board for ventilation hoods; ovens; electrical panels; laboratory furniture; bulkheads, partitions and ceilings for marine construction; and flow control devices for the molten metal industry.
 - (b) Monitor each potential source of asbestos emissions from any part of the fabricating facility, including air cleaning devices, process equipment for material processing and handling, at least once each day, during daylight hours, for visible emissions to the outside air during periods of operation. The monitoring shall be by visual observation of at least 15 seconds duration per source of emissions.
 - (c) Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunctions, including to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected on a weekly basis according to this paragraph, submit to the Department, revise as necessary, and implement a written maintenance plan to include, at a minimum, the following:
 - (A) Maintenance schedule.
 - (B) Recordkeeping plan.
 - (d) Maintain records of the results of visible emission monitoring and air cleaning device inspections using a format approved by the Department which includes the following:
 - (A) Date and time of each inspection
 - (B) Presence or absence of visible emissions.

- (C) Condition of fabric filters, including presence of any tears, holes, and abrasions.
- (D) Presence of dust deposits on clean side of fabric filters.
- (E) Brief description of corrective actions taken, including date and time.
- (F) Daily hours of operation for each air cleaning device.
- (e) Furnish upon request and make available at the affected facility during normal business hours for inspection by the Department, all records required under this section.
- (f) Retain a copy of all monitoring and inspection records for at least two years.
- (g) Submit a copy of the visible emission monitoring records to the Department quarterly. The quarterly report shall be postmarked by the 30th day following the end of the calendar quarter.
- (16) Insulation: Molded insulating materials which are friable and wet-applied insulating materials which are friable after drying, installed after <u>[the effective date of these</u> <u>regulations]October 21, 1982</u>, shall contain no commercial asbestos. The provisions of this section do not apply to insulating materials which are spray applied; such materials are regulated under section (12) of this rule.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: AQ 11, f. & ef. 10-7-91

ASBESTOS DISPOSAL REQUIREMENTS

340-25-469 Work practices and procedures for packaging, storage, transport, and disposal of asbestos-containing waste material: The owner or operator of any source covered under the provisions of OAR 340-25-465(3), <u>340-25</u>-466(1), or <u>340-25</u>-468(12) and (15) of this rule or any other source of friable asbestoscontaining waste material shall meet the following standards:

(1) There shall be no visible emissions to the atmosphere, except as provided in section (12) of this section, during the collection; processing, including incineration; packaging; transporting; or deposition of any asbestoscontaining waste material which is generated by such source.

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- (2) All asbestos-containing waste materials shall be adequately wetted to ensure that they remain wet until disposed of, then:
 - (a) Processed into nonfriable pellets or other shapes; or
 - (b) Packaged in leak-tight containers such as two plastic bags each with a minimum thickness of 6 mill., or fiber or metal drum. Containers are to be labeled as follows:
 - (A) The name of the waste generator and the location at which the waste was generated; and
 - (B) A warning label that states:

DANGER

Contains Asbestos Fibers Avoid Creating Dust Cancer and Lung Disease Hazard Avoid Breathing Airborne Asbestos Fibers

Alternatively, warning labels specified by 29 CFR 1910.1001 (7/1/88) may be used.

- (c) Where the asbestos-containing materials are not removed from a facility prior to demolition as described in OAR 340-25-468(15), adequately wet asbestos-containing waste material at all times after demolition and keep wet during handling and loading for transport to a disposal site. Such asbestos-containing waste materials, shall be transported in lined and covered containers for bulk disposal.
- (4) The interim storage of asbestos-containing waste material shall protect the waste from dispersal into the environment and provide physical security from tampering by unauthorized persons. The interim storage of asbestos-containing waste material is the sole responsibility of the contractor, owner or operator performing the asbestos abatement project.
- (5) All asbestos-containing waste material shall be deposited as soon as possible by the waste generator at:
 - (a) A waste disposal site authorized by the Department and operated in accordance with the provisions of this rule; or
 - (b) A Department approved site that converts asbestoscontaining waste material into nonasbestos (asbestosfree) material according to the provisions of 40 CFR 61.155 Standard for Operations that convert asbestoscontaining waste material into nonasbestos (asbestosfree) material.

- (6) Persons disposing of asbestos-containing waste material shall notify the landfill operator of the type and volume of the waste material and obtain the approval of the landfill operator prior to bringing the waste to the disposal site.
 (7) For each waste shipment the following information shall be
 - recorded on a Department form:
 - (a) Waste Generation
 - (A) The name, address, and telephone number of the waste generator.
 - (B) The number and type of asbestos-containing waste material containers and volume in cubic yards.
 - (C) A certification that the contents of this consignment are carefully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highways according to applicable regulations.
 - (b) Waste Transportation
 - (A) The date transported.
 - (B) The name, address, and telephone number of the transporter(s).
 - (c) Waste Disposal
 - (A) The name and telephone number of the disposal site operator.
 - (B) The name and address or location of the waste disposal site.
 - (C) The quantity of the asbestos-containing waste material in cubic yards.
 - (D) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers.
 - (E) The date asbestos-containing waste is received at disposal site.
- (8) For the transportation of asbestos-containing waste material:
 (a) The waste generator shall:
 - (A) Maintain the waste shipment records and ensure that all the information requested on the Department form regarding waste generation and transportation has been supplied.
 - (B) Limit access into loading and unloading area to authorized personnel.
 - (C) Mark vehicles, while loading and unloading asbestos-containing waste, with signs (20 in. x 14 in.) that state:

DANGER

ASBESTOS DUST HAZARD CANCER AND LUNG DISEASE HAZARD Authorized Personnel Only

Alternatively, language that conforms to the requirements of 29 CFR 1910.1001 (7/1/88) may be used.

- (b) The waste transporter shall:
 - (A) Immediately notify the landfill operator upon arrival of the waste at the disposal site.
 - (B) Provide a copy of the waste shipment record to the disposal site owners or operators when the asbestos-containing waste material is delivered to the disposal site.
- (9) After initial transport of asbestos-containing waste material the waste generator shall:
 - (a) Receive a copy of the completed waste shipment record within 35 days, or determine the status of the waste shipment. A completed waste shipment record will include the signature of the owner or operator of the designated disposal site.
 - (b) Have a copy of the completed waste shipment record within 45 days, or submit to the Department a written report including:
 - (A) A copy of the waste shipment record for which a confirmation of delivery was not received; and
 - (B) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.
 - (c) Keep waste shipment records, including a copy signed by the owner or operator of the designated waste disposal site, for at least three years. Make all disposal records available upon request to the Department. For an asbestos abatement project conducted by a contractor licensed under OAR 340-33-040, the records shall be retained by the licensed contractor. For any other asbestos abatement project, the records shall be retained by the facility owner.
- (10) Each owner or operator of an active asbestos-containing waste disposal site shall meet the following standards:
 - (a) For all asbestos-containing waste material received:
 - (A) Ensure that off-loading of asbestos-containing waste material is done under the direction and supervision of the landfill operator or their authorized agent and accomplished in a manner

that prevents the leak-tight transfer containers from rupturing and prevents visible emissions to the air.

- (B) Ensure that off-loading of asbestos-containing waste material occurs at the immediate location where the waste is to be buried and restrict public access to off-loading area until waste is covered in accordance with (I), below.
- (C) Maintain waste shipment records and ensure that all information requested on the Department form regarding waste disposal has been supplied.
- (D) Retain a copy of waste shipment records for at least three years.
- (E) Immediately notify the Department by telephone, followed by a written report to the Department the following working day, of the presence of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
- (F) As soon as possible and no longer than 30 days after receipt of the waste send a copy of the signed waste shipment record to the waste generator.
- (G) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. Report in writing to the Department within the 15th day after receiving the waste any discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received which cannot be reconciled between the waste generator and the waste disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report. Identify the Department assigned asbestos project number in the discrepancy report.
- (H) Select the waste burial site in an area of minimal work activity that is not subject to future excavation.

- (I) Cover all asbestos-containing waste material deposited at the disposal site with at least 12 inches of soil or six inches of soil plus 12 inches of other waste before compacting equipment runs over it but not later than the end of the operating day.
- (b) Maintain, until closure, record of the location, depth and area, and quantity in cubic yards of asbestoscontaining waste material within the disposal site on a map or diagram of the disposal area.
- (c) Excavation or disturbance of asbestos-containing waste material, that has been deposited at a waste disposal site and is covered, shall be considered an asbestos abatement project. The notification for any such project shall be submitted as specified in OAR 340-25-467 but modified as follows:
 - (A) Submit the project notification and project notification fee to the Department at least 45 days before beginning any excavation or disturbance of asbestos-containing waste disposal site.
 - (B) Reason for disturbing the waste.
 - (C) Procedures to be used to control emissions during the excavation, storage, transport and ultimate disposal of the excavated asbestoscontaining waste material. If deemed necessary, the Department may require changes in the emission control procedures to be used.
 - (D) Location of any temporary storage site and the final disposal site.
- (d) Upon closure of an active asbestos-containing waste disposal site each owner or operator shall:
 - (A) Comply with all the provisions for inactive asbestos-containing waste disposal sites.
 - (B) Submit to the department a copy of records of asbestos waste disposal locations and quantities.
 - (C) Furnish upon request, and make available during normal business hours for inspection by the Department, all records required under this section.
- (11) The owner or operator of an inactive asbestos-containing waste disposal site shall meet the following standards:
 - (a) Insure that a cover of at least two feet of soil or one foot of soil plus one foot of other waste be maintained.
 - (b) Grow and maintain a cover of vegetation on the area to prevent erosion of the non asbestos-containing cover of soil or other waste materials or in desert areas where vegetation would be difficult to maintain, a layer of

at least three inches of well-graded, nonasbestos crushed rock may be placed and maintained on top of the final cover instead of vegetation.

- inactive waste disposal sites for asbestos-(C) For containing tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used and maintained to achieve the requirements of (a) and (b) of this section, provided prior written approval of the Department is obtained.
- (d) Excavation or disturbance at any inactive asbestoscontaining waste disposal site shall be considered an asbestos abatement project. The notification for any such project shall be submitted as specified in OAR 340-25-467, but modified as follows:
 - Submit the project notification and project (A) notification fee to the Department at least 45 days before beginning any excavation or disturbance of asbestos-containing waste disposal site.
 - Reason for disturbing the waste. (B)
 - (C) Procedures to be used to control emissions during the excavation, storage, transport and ultimate disposal of the excavated asbestoscontaining waste material. If deemed necessary, the Department may require changes in the emission control procedures to be used.
 - Location of any temporary storage site and the (D) final disposal site.
- Within 60 days of a site becoming inactive, request in (e) writing that the Commission issue an environmental hazard notice for the site. This environmental hazard notice will in perpetuity notify any potential purchaser of the property that:
 - The land has been used for the disposal of (A) asbestos-containing waste material; and
 - That the survey plot and record of the location (B) quantity of asbestos-containing and waste disposed of within the disposal site required for active asbestos disposal sites have been filed with the Department; and
 - The site is subject to OAR 340-25-465 through (C) OAR 340-25-469.
- Any waste which contains nonfriable asbestos-containing (12) material not subject to this rule shall be handled and disposed of using methods that will prevent the release of airborne asbestos-containing material.

(13) Rather than meet the requirements of this rule, an owner or operator may elect to use an alternative storage, transport, or disposal method which has received prior written approval by the Department.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: AQ 11, f. & ef. 10-7-91

Emission Standard for Beryllium 340-25-470

- (1) Applicability. The provisions of this rule are applicable to the following emission sources of beryllium:
 - (a) Extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium, beryllium ore, oxides, alloys, or beryllium containing waste;
 - (b) Machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than five percent (5%) beryllium by weight;
 - (c) Other sources, the operation of which results or may result in the emission of beryllium to the outside air.
- (2) Emission limit:
 - (a) No person shall cause to be discharged into the atmosphere emissions from any source exceeding 10 grams of beryllium for any 24 hour period;
 - (b) The burning of beryllium and/or beryllium containing waste except propellants is prohibited except in incinerators, emissions from which must comply with the standard;
 - (c) Stack sampling:
 - (A) Unless a deferral of emission testing is obtained under the provisions of OAR 340-25-460(6)(c), each person operating a source subject to[the provisions of] this[standard] <u>rule</u> shall test emissions from[his] the source subject to the following schedule:
 - (i) {Within ninety (90) days of the effective date of these rules}By <u>December 24, 1975</u> for existing sources or for new sources having startup dates prior to{ the effective date of this standard} September 25, 1975;
 - (ii) Within ninety (90) days of startup in the case of a new source having a startup date after[the effective date of this standard] September 25, 1975.

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- (B) The Department shall be notified at least thirty
 (30) days prior to an emission test so that they may, at their option, observe the test;
- Samples shall be taken over such periods and (C) frequencies as necessary to determine the maximum emissions occurring during any 24 hour period. Calculations of maximum 24 hour emissions shall be based on that combination of process operating hours and any variation in capacities or processes that will result in maximum emissions. No changes in operation which may be expected to increase total emissions over those determined by the most recent stack test shall be made until estimates of the increased emissions have been calculated, and have been reported to and approved in writing by the Department;
- (D) All samples shall be analyzed and beryllium emissions shall be determined and reported to the Department within thirty (30) days following the stack test. Records of emission test results and other data needed to determine beryllium emissions shall be retained at the source and made available for inspection by the Department for a minimum of two (2) years following such determination.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 96, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82

Emission Standard for Beryllium Rocket Motor Firing

340-25-475 The emission standard for Beryllium Rocket Motor Firing, 40 CFR, Part 61, Section 61.40 through 61.44, as last amended on November 7, 1985, is adopted by reference and made a part of[these rules] OAR 340-25-450 through 340-25-485. A copy of this emission standard is on file at the Department of Environmental Quality.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 96, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; DEQ 19-1986, f. & ef. 11-7-86

Emission Standard for Mercury

340-25-480

- (1)Applicability. The provisions of this rule are applicable to sources which process mercury ore to recover mercury, sources using mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and to any other source, the operation of which results or may result in the emission of mercury to the ambient air.
- (2) Emission Standard. No person shall cause to be discharged into the atmosphere emissions from any source exceeding 2,300 grams of mercury during any 24 hour period, except that mercury emissions to the atmosphere from sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges shall not exceed 3_200 grams of mercury per 24 hour period.
- (3) Stack sampling:
 - Mercury ore processing facility: (a)
 - (A) Unless a deferral of emission testing is obtained under OAR 340-25-460(6)(c) - of these rules], each person operating a source processing mercury ore shall test emissions from from find the source, subject to the following:
 - [Within ninety (90) days of the effective date of these rules]By (i) December 24, 1975 for existing sources or for new sources having startup dates prior to[the effective date of this standard] September 25, 1975;
 - Within ninety (90) days of startup in the case of a new source having a (ii) startup date after { the effective date of this standard] September 25, 1975.
 - The Department shall be notified at least thirty (B) (30) days prior to an emission test so that they may, at their option, observe the test;
 - (C) Samples shall be taken over such periods and frequencies as necessary to determine the maximum emissions occurring during any 24 hour Calculations period. of maximum 24 hour emissions shall be based on that combination of process operating hours and any variation in capacities or processes that will result in maximum emissions. No changes in operation which may be expected to increase total emissions over those determined by the most recent stack test shall be made until estimates of the increased emissions have been calculated, and have been reported to and approved in writing by the Department;

- (D) All samples shall be analyzed and mercury emissions shall be determined and reported to the Department within thirty (30) days following the stack test. Records of emission test results and other data needed to determine mercury emissions shall be retained at the source and made available for inspection by the Department for a minimum of two (2) years following such determination.
- (b) Mercury Chlor-alkali plant:
 - (A) Hydrogen and end-box ventilation gas streams. Unless a deferral of emission testing is obtained under OAR 340-25-460(6)(c), each person operating a source of this type shall test emissions from his source following the provisions of subsection (3)(a) of this rule;
 - (B) Room ventilation system:
 - Unless a deferral of emission testing is obtained under OAR 340-25-460(6)(c), all persons operating mercury chlor-alkali plants shall pass all cell room air in forced gas streams through stacks suitable for testing;
 - (ii) Emissions from cell rooms may be tested in accordance with provisions of paragraph (3) (b) (A) of this rule or may demonstrate compliance with subparagraph (3) (b) (B) (iii) of this rule and assume ventilation emissions of 1,300 grams/day of mercury;
 - (iii) If no deferral of emission testing is requested, each person testing emissions shall follow the provisions of subsection (3) (a) of this rule.
- (c) Any person operating a mercury chlor-alkali plant may elect to comply with room ventilation sampling requirements by carrying out approved design, maintenance, and housekeeping practices. A summary of these approved practices shall be available from the Department;
- (d) Stack sampling and sludge sampling at wastewater treatment plants shall be performed in accordance with
 40 CFR 61.53(d) or 40 CFR 61.54, last amended by Federal Register March 19, 1987, pages 8724 to 8728.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

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Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 96, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; DEQ 19-1986, f. & ef. 11-7-86; DEQ 24-1989, f. & cert. ef. 10-26-89

Work Practice Standard for Radon 222 Emissions from Underground Uranium Mines

340-25-485 The work practice standard for Radon-222 Emissions from active Underground Uranium Mines, 40 CFR, Part 61, Section 61.20 through 61.28, as published in 50 FR 15392 on April 17, 1985, is adopted by reference and made a part of <u>[-these rules] OAR 340-</u> 25-450 through 340-25-485. The standard requires airtight bulkheads to prevent Radon-222 from escaping from abandoned parts of uranium mines that are extracting greater than 10,000 tons of ore per year, or will extract more than 100,000 tons of ore during the life of the mine.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 19-1986, f. & ef. 11-7-86

Standards of Performance for New Stationary Sources

Statement of Purpose

340-25-505 The U.S. Environmental Protection Agency has adopted in Title 40, Code of Federal Regulations, Part 60, Standards of Performance for certain new stationary sources. It is the intent of [this rule] OAR 340-25-505 through 340-25-805 to specify requirements and procedures necessary for the Department to implement and enforce the aforementioned Federal Regulation.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75

Definitions

340-25-510 <u>As used in OAR 340-25-505 through 340-25-805:</u>

(1) "Administrator" herein and in **Title 40, Code of Federal Regulations, Part 60**, means the Director of the Department or appropriate regional authority.

[(3)](2) "CFR" means Code of Federal Regulations.

- f(2) f(3) "Federal Regulation" means Title 40, Code of Federal Regulations, Part 60, as promulgated prior to March 29, 1989.
- (4) "Regional authority" means a regional air quality control authority established under provisions of ORS [468.505]468A:105.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89

Statement of Policy

340-25-515 It is hereby declared the policy of the Department to consider the performance standards for new stationary sources contained<u>[herein] in OAR 340-25-505 through 340-25-805</u> to be minimum standards; and, as technology advances, conditions warrant, and Department or regional authority rules require or permit, more stringent standards shall be applied.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75

Delegation

340-25-520 The Commission may, when any regional authority requests and provides evidence demonstrating its capability to carry out the provisions of <u>these-rules</u><u>OAR 340-25-505 through</u> <u>340-25-805</u>, authorize and confer jurisdiction upon such regional authority to perform all or any of such provisions within its boundary until such authority and jurisdiction shall be withdrawn for cause by the Commission.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75

Applicability

340-25-525[This-rule] OAR 340-25-505 through 340-25-805 shall be applicable to stationary sources identified in OAR 340-25-550 through 340-25-7[15]25 for which construction, reconstruction, or modification has been commenced, as defined in Title 40, Code of Federal Regulations (40 CFR) 60.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85

General Provisions

340-25-530 Title 40, CFR, Part 60, Subpart A, as promulgated prior to March 29, 1989, is by this reference adopted and incorporated herein. Subpart A includes paragraphs 60.1 to 60.18 which address, among other things, definitions, performance tests, monitoring requirements, and modifications.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef.

Performance Standards

Federal Regulations Adopted by Reference

8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89

340-25-535 Title 40, CFR, Parts 60.40 through 60.154, and 60.250 through 60.648, and 60.680 through 60.685, as established as final rules prior to March 29, 1989, is by this reference adopted and incorporated herein, with the exception of the December 27, 1985 federal register revision to 40 CFR 60.11(b). As of March 29, 1989, the Federal Regulations adopted by reference set the emission standards for the new stationary source categories set out in OAR 340-25-550 through 340-25-725 (these are summarized for easy screening, but testing conditions, the actual standards, and other details will be found in the Code of Federal Regulations).

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; sections (1) thru (12) of this rule renumbered to 340-25-550 thru 340-25-605; DEQ 22-1982, f. & ef. 10-21-82; DEQ

17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89

340-25-540 [Renumbered to 340-25-700]

340-25-545 [Renumbered to 340-25-705]

Standards of Performance for Fossil Fuel-Fired Steam Generators

340-25-550 The pertinent federal rules are 40 CFR 60.40 to 60.46, also known as **Subpart D**. The following emission standards, summarizing the federal standards set forth in **Subpart D**, apply to each fossil fuel-fired and to each combination wood-residue fossil-fuel fired steam generating unit of more than 73 megawatts (250 million BTU/hr) heat input:

- (1) Standards for Particulate Matter. No owner or operator subject to the provision of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which:
 - (a) Contain particulate matter in excess of 43 nanograms per joule heat input (0.10 lb. per million BTU) derived from fossil fuel or fossil fuel and wood residue;
 - (b) Exhibit greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity.
- (2) Standards for Sulfur Dioxide. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of:
 - (a) 340 nanograms per joule heat input (0.80 lb. per million BTU) derived from liquid fossil fuel or liquid fossil fuel and wood residue;
 - (b) 520 nanograms per joule heat input (1.2 lb. per million BTU) derived from solid fossil fuel or solid fossil fuel and wood residue;
 - (c) When different fossil fuels are burned simultaneously in any combination, the applicable standard shall be determined by proration using the following formula: $SO_2 =$

$$\frac{y(340) + z(520)}{y + z}$$

where:

- (A) y is the percentage of total heat input derived from liquid fossil fuel; and
- (B) z is the percentage of total heat input derived from solid fossil fuel; and

- (C) SO₂ is the prorated standard for sulfur dioxide when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels and wood residue fired.
- (d) Compliance shall be based on the total heat input from all fossil burned, including gaseous fuels.
- Standards for Nitrogen Oxides. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO_2 in excess of:
 - (a) 86 nanograms per joule heat input (0.20 lb. per million BTU) derived from gaseous fossil fuel;
 - (b) 129 nanograms per joule heat input (0.30 lb. per million BTU) derived from [solid fossil fuel,]liquid fossil fuel and wood residue, or gaseous fossil fuel and wood residue;
 - (c) 300 nanograms per joule heat input (0.70 lb. per million BTU) derived from solid fossil fuel or solid fossil fuel and wood residue (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse);
 - (d) When different fossil fuels are burned simultaneously in any combination the applicable standard shall be determined by proration using the following formula:

 $PNO_{r} =$

$$\frac{w(260) + x(86) + y(130)}{w + x + y + z}$$

- (A) PNO_x is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels and wood residue fired; and
- (B) [B]<u>w</u> is the percentage of total heat input derived from lignite; and
- (C) <u>{y}x</u> is the percentage of total heat input derived from gaseous fossil fuel; and
- (D) y is the percentage of total heat input derived from liquid fossil fuel; and
- (E) z is the percentage of total heat input derived from solid fossil fuel (except lignite).
- (e) When a fossil fuel containing at least 25 percent, by weight, of coal refuse is burned in combination with gaseous, liquid, or other solid fossil fuel or wood residue, section (3) of this rule does not apply;
- (f) This rule does not apply to Electric Utility Steam Generating Units for which construction is commenced after September 18, 1978. These units must comply with more stringent OAR 340-25-610.

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[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(1); DEQ 17-1987, f. & ef. 8-24-87

Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

340-25-553 The pertinent federal rules are 40 CFR 60.40b to 60.49b, also known as Subpart bf. The following emission standards, summarizing the federal standard set forth in Subpart bf, apply to each steam generating unit of more than 29 MW (100 million BTU/hr) heat input capacity, which commenced construction, modification, or reconstruction after June 19, 1984:

- (1) Standards for Particulate Matter. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which:
 - (a) Contain particulate matter in excess of 22 to 86 nanograms per joule (0.05 to 0.20 lb/million BTU) heat input from firing the fuels as specified in 40 CFR 60.43b;
 - (b) Exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
- (2) Standards for Nitrogen Oxides. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides in excess of 43 to 340 nanograms per joule (0.10 to 0.80 lb/million BTU) heat input, as specified in the table in 40 CFR 60.44b(a).
- (3) Standards for Sulfur Dioxide. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of the amounts specified in 40 CFR 60.42b:
 - (a) 10 to 50 percent of the potential sulfur dioxide emission rate;
 - (b) 520 nanograms per joule (1.2 lb/million BTU) of heat input;
 - (c) Amount determined according to the formula in 40 CF 60.42b.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89

Standards of Performance for Incinerators

340-25-555 The pertinent federal rules are 40 CFR 60.50 to 60.54, also known as **Subpart E**. The following emission standards, summarizing the federal standards set forth in **Subpart E**, apply to each incinerator whose charging rate is more than 45.36 metric tons (50 tons) per day: Standards for Particulate Matter. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere any gases which contain particulate matter in excess of 0.18 g/dscm (0.080 gr/dscf) corrected to 12 percent CO2.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(3)

Standards of Performance for Portland Cement Plants

340-25-560 The pertinent federal rules are 40 CFR 60.60 to 60.65, also known as Subpart F. The following emission standards, summarizing the federal standards set forth in Subpart F, shall apply to each Portland cement plant:

- (1) Standards for Particulate Matter from Kiln. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any kiln any gases which:
 - (a) Contain particulate matter in excess of 0.15 Kg. per metric ton (0.30 lb. per ton) of feed (dry basis) to the kiln;
 - (b) Exhibit greater than 20 percent opacity.
- (2) Standards for Particulate Matter from Clinker Cooler. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any clinker cooler any gases which:
 - (a) Contain particulate matter in excess of 0.050 Kg. per metric ton (0.10 lb. per ton) of feed (dry basis) to the kiln;
 - (b) Exhibit 10 percent opacity or greater.
- (3) Standards for Particulate Matter for Other Facilities. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity or greater.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(3); DEQ 24-1989, f. &cert. ef. 10-26-89

Standards of Performance for Nitric Acid Plants

340-25-565 The pertinent federal rules are 40 CFR 60.70 to 60.74, also known as **Subpart G**. The following emission standards summarizing the federal standards set forth in **Subpart G**, apply to each nitric acid plant which produces "weak nitric acid", which is 30 to 70 percent in strength by either the pressure or atmospheric pressure process: Standards for Nitrogen Oxides. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which:

- (1) Contain nitrogen oxides, expressed as NO_2 in excess of 1.5 Kg. per metric ton of acid produced (3.0 lb. per ton), the production being expressed as 100 percent nitric acid.
- (2) Exhibit 10 percent opacity or greater.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(4)

Standards of Performance for Sulfuric Acid Plants

340-25-570 The pertinent federal rules are 40 CFR 60.80 to 60.85, also known as Subpart H. The following emission standards, summarizing the federal standards set forth in Subpart H, apply to each sulfuric acid production unit but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds:

- (1) Standards for Sulfur Dioxide. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2.0 Kg. per metric ton of acid produced (4.0 lb. per ton), the production being expressed as 100 percent H_2SO_4 .
- (2) Standards for Acid Mist. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which:

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- (a) Contain acid mist expressed as H_2SO_4 , in excess of 0.075 Kg. per metric ton of acid produced (0.15 lb. per ton) the production being expressed as 100 percent H_2SO_4 ;
- (b) Exhibit 10 percent opacity or greater.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(5)

Standards of Performance for Hot Mix Asphalt Facilities

340-25-575 The pertinent federal rules are 40 CFR 60.90 to 60.93, also known as **Subpart I**. The following emission standards, summarizing the federal standards set forth in **Subpart I**, apply to each hot mix asphalt facility: Standards for Particulate Matter. No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

- (1) Contain particulate matter in excess of 90 mg/dscm (0.040 gr/dscf).
- (2) Exhibit 20 percent opacity or greater.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(6); DEQ 19-1986, f. & ef. 11-7-86

Standards of Performance for Petroleum Refineries

340-25-580 The pertinent federal rules are 40 CFR 60.100 to 60.106, also known as Subpart J. The following emission standards, summarizing the federal standards set forth in Subpart J, apply to the following affected facilities in petroleum refineries: Fluid catalytic cracking unit catalyst regenerators, Claus sulfur recovery plants exceeding 20 long tons per day, and fuel gas combustion devices:

- (1) Standards for Particulate Matter. No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator:
 - (a) Particulate matter in excess of 1.0 Kg/1000 Kg. (1.0 lb./1000 lb.) of coke burn-off in the catalyst regenerator;

- (b) Gases exhibiting 30 percent opacity or greater, except for 6.0 minutes in any one hour;
- (c) In those instances in which auxiliary liquid or solid fossil fuels are burned in the fluid catalytic cracking unit incinerator-waste boiler, particulate matter in excess of that permitted by subsection (1)(a) of this rule may be emitted to the atmosphere, except that the incremental rate of particulate emissions shall not exceed 43.0 g/MJ (0.10 lb./million BTU) of heat input attributable to such liquid or solid fuel.
- (2) Standard[s] for Carbon Monoxide. No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from the fluid catalytic cracking unit catalyst regenerator any gases which contain carbon monoxide in excess of 0.050 percent by volume.
- (3) Standards for Sulfur Dioxide. No owner or operator subject to the provisions of this rule shall burn in any fuel gas combustion device any fuel gas which contains H_2S in excess of 230 mg/dscm (0.10 gr/dscf), except as provided in this section. The combustion of process upset gas in a flare, or the combustion in a flare of process gas or fuel gas which is released to the flare as a result of relief valve leakage, is exempt from this section. The owner or operator may elect to treat the gases resulting from the combustion of fuel gas in a manner which limits the release of SO_2 to the atmosphere if it is <u>{shown to the satisfaction of}demonstrated through a</u> <u>submission to, and approved by</u> the Department that this prevents SO_2 emissions as effectively as compliance with the requirements of this section.
- (4) No owner or operator subject to the provisions of this rule shall discharge or cause the discharge of any gases into the atmosphere from any Claus sulfur recovery plant containing in excess of:
 - (a) 0.025 percent by volume of sulfur dioxide at zero percent oxygen on a dry basis if emissions are controlled by an oxidation control system, or a reduction control system followed by incineration; or
 - (b) 0.030 percent by volume of reduced sulfur compounds and 0.0010 percent by volume of hydrogen sulfide calculated as sulfur dioxide at zero percent oxygen on a dry basis if emissions are controlled by a reduction control system not followed by incineration.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(7)

Standards of Performance for Storage Vessels for Petroleum Liquids

340-25-585 The pertinent federal rules are 40 CFR 60.110 to 60.115a, also known as Subparts K and Ka. The following requirements, summarizing the federal requirements set forth in Subparts K and Ka, apply to each storage vessel for petroleum liquids which has a storage capacity greater than 151,412 liters (40,000 gallons). These requirements do not apply to storage vessels for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. "Petroleum liquids" means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Number 2 through Number 6 fuel oils as specified in ASTM D-396-69, gas turbine fuel oils Numbers 2-GT through 4-GT as specified in ASTM D-2880-71, or diesel fuel oils Numbers 2-D and 4-D as specified in ASTM D-975-68: Standard for Hydrocarbons. The owner or operator of any storage vessel to which this section applies shall store petroleum liquids as follows:

- (1) If the true vapor pressure of the petroleum liquid as stored is equal to or greater than 78 mm Hg (1.5 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system, or an equivalent.
- (2) If the true vapor pressure of the petroleum liquid as stored is greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent.
- (3) If construction is commenced after May 18, 1978, vessels in section (1) of this rule shall have double seals if external floating roof vessels, and comply with 40 CFR 60.110a to 115a.
- (4) If construction is commenced after May 18, 1978, vapor recovery systems allowed by sections (1) and (3) of this rule, and required by section (2) of this rule shall be designed so as to reduce Volatile Organic Compounds emissions to the atmosphere by at least 95 percent by weight.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-35-535(8)

Standards of Performance for Volatile Organic Liquid Storage Vessels

340-25-587 The pertinent federal rules at are 40 CFR 60.110b to 60.116b, also known as Subpart Kb. The following requirements, summarizing the federal requirements set forth in Subpart Kb, apply to each storage vessel for volatile organic liquids (VOL's) which

has a storage capacity greater than or equal to 40 cubic meters (m^3) , for which construction, reconstruction, or modification is commenced after July 23, 1984. "Volatile organic liquid" (VOL) means any organic liquid which can emit volatile organic compounds into the atmosphere. These compounds are identified in EPA statements on ozone abatement policy for SIP revisions (42 FR 35314, 44 FR 32042, 45 FR 32424, and 45 FR 48941). Each storage vessel with a design capacity greater than or equal to 40 m³ and less than 75 m³ shall have readily accessible records showing the dimension of the vessel and an analysis showing the capacity of the vessel. The owner or operator of any storage vessel to which this section applies shall store a VOL as follows:

- (1) If the storage capacity is greater than or equal to 151 m³ and the true vapor pressure of the VOL as stored is equal to or greater than 5.2 kPa but less than 76.6 kPa, or the storage capacity is greater than or equal to 75 m³ but less than 151 m³ and the true vapor pressure is equal to or greater than 27.6 kPa but less than 76.6 kPa, the storage vessel shall be equipped with either a fixed-internal roof combination, an external floating roof, closed vent system and control devise, or an equivalent.
- (2) If the storage capacity is greater than or equal to 75 m³ and the true vapor pressure of the VOL as stored is greater than or equal to 76.6 kPa, the storage vessel shall be equipped with either a closed vent system and control devise, or an equivalent.

Stat. Auth.: 468<u>& 468A</u> Hist.:DEQ 24-1989, f. & cert. ef. 10-26-89

Standards of Performance for Secondary Lead Smelters

340-25-590 The pertinent federal rules are 40 CFR 60.120 to 60.123, also known as Subpart L. The following emission standards, summarizing the federal standards set forth in Subpart L, apply to the following facilities subject to this rule in secondary lead smelters: Pot furnaces of more than 250 Kg. (550 lbs.) charging capacity, blast (cupola) furnaces, and reverberatory furnaces: Standards for Particulate Matter. No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from a blast (cupola) or reverberatory furnace any gases which:

- (1) Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).
- (2) Exhibit 20 percent opacity or greater.
- (3) No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from any pot furnace any gases which exhibit 10 percent opacity or greater.

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[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 **& 468A** Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(9)

Standards of Performance for Secondary Brass and Bronze Production Plants

340-25-595 The pertinent federal rules are 40 CFR 60.130 to 60.133, also known as **Subpart M**. The following emission standards, summarizing the federal standards set forth in **Subpart M**, apply to the following affected facilities in secondary brass or bronze production plants subject to this rule: Reverberatory and electric furnaces of 1000 Kg. (2205 lbs.) or greater production capacity and blast (cupola) furnaces of 250 Kg/hr. (550 lbs./hr.) or greater production capacity; Standards for Particulate Matter. No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from a reverberatory furnace any gases which:

- Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).
- (2) Exhibit 20 percent opacity or greater.
- (3) No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from any blast (cupola) or electric furnace any gases which exhibit 10 percent opacity or greater.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(10); DEQ 15-1985, f. & ef. 10-21-85

Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973

340-25-600 The pertinent federal rules are 40 CFR 60.140 to 60.144, also known as Subpart N. The following emission standards, summarizing the federal standards set forth in Subpart N, apply to each basic oxygen process furnace in iron and steel plants subject to this rule if the furnace was modified or constructed after June 11, 1973: Standards for Particulate Matter. No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

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- (1) Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).
- (2) Exit from a control device and exhibit 10 percent opacity or greater, except that an opacity of greater than 10 percent but less than 20 percent may occur once per steel production cycle.
- (3) Contain particulate matter in excess of 68 mg/dscm (0.030 gr/dscf) as measured for the primary oxygen blow, if constructed, modified, or reconstructed after January 20, 1983.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(11); DEQ 19-1986, f. & ef. 11-7-86

Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983

340-25-602 The pertinent federal rules are 40 CFR 60.140a to 60.145a, also known as Subpart Na. The following emission standards, summarizing the federal standards set forth in Subpart Na, apply to top-blown Basic Oxygen Process Facilities and hot metal transfer stations and skimming stations used with bottom-blown or top-blown Basic Oxygen Process Facilities, that commenced construction, modification, or reconstruction after January 20, 1983, in any iron and steel plant:

Standard for Particulate Matter. No owner or operator shall discharge or cause the discharge into the atmosphere any secondary emissions that:

- (1) Exit from the Basic Oxygen Process Facility (BOPF) shop roof monitor (or other building openings) and exhibit greater than [20]10 percent opacity during the steel production cycle of any top-blown BOPF or during hot metal transfer or skimming operations for any bottom-blown BOPF; except that an opacity greater than 10 percent but less than 20 percent may occur once per steel production cycle.
- (2) Exit from a control device used solely for the collection of secondary emissions from a top-blown BOPF or from hot metal transfer or skimming for a top-blown or a bottom-blown BOPF and contain particulate matter in excess of 23 mg/dscm (0.010 gr/dscf).
- (3) Exit from a control device used solely for the collection of secondary emissions from a top-blown BOPF or from hot metal transfer or skimming for a top-blown or a bottom-blown BOPF and exhibit more than 5 percent opacity.

- A fume suppression system used to control secondary emissions from an affected facility is not subject to paragraphs (b) and (c) of this standard.
- (5) A control device used to collect both primary and secondary emissions from a BOPF is not subject to paragraphs (b) and (c) of this standard.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 19-1986, f. & ef. 11-7-86

Standards of Performance for Sewage Treatment Plants

340-25-605 The pertinent federal rules are 40 CFR 60.150 to 60.154, also known as **Subpart O**. The following emission standards, summarizing the federal standards set forth in **Subpart O**, apply to each incinerator which burns the sludge produced by municipal sewage treatment facilities: Standards for Particulate Matter. No owner or operator of any sewage sludge incinerator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere of:

- (1) Particulate matter at a rate in excess of 0.65 g/Kg. (1.30 lb./ton) dry sludge input.
- (2) Any gases which exhibit 20 percent opacity or greater.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; Renumbered from 340-25-535(12)

Standards of Performance for Electric Utility Steam Generating Units

340-25-610 The pertinent federal rules are 40 CFR 60.40a to 60.49a, also known as Subpart Da. The following emission standards, summarizing the federal standards set forth in Subpart Da, apply to each electric utility steam generating unit that is capable of combusting more than 73 megawatts (250 million Btu/hour) heat input of fossil fuel (either alone or in combination with any other fuel) and for which construction commenced after September 18, 1978:

(1) Standards for Particulate Matter. No owner or operator subject to the provision of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of:

- (a) 13 ng/J (0.030 lb/million Btu) heat input derived from the combustion of solid, liquid, or gaseous fuel;
- (b) 1.00 percent of the potential combustion concentration when combusting solid fuel;
- (c) 30 percent of the potential combustion concentration when combusting liquid fuel; and
- (d) An opacity of 20 percent, except for one 6-minute period per hour of not more than 27 percent opacity.
- Standards for Sulfur Dioxide. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of:
 - (a) 520 ng/J (1.20 lb. per million Btu) heat input for solid fuel or solid-derived fuel and 10 percent of the potential combustion concentration (90 percent reduction); or
 - (b) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 260 ng/J (0.60 lb. per million Btu) heat input for solid fuel or solid-derived fuel;
 - (c) 340 ng/J (0.80 lb. per million Btu) heat input from liquid or gaseous fuels and 10 percent of the potential combustion concentration (90 percent reduction); or
 - (d) When emissions are less than 80 ng/J (0.20 lb. per million Btu) heat input from liquid or gaseous fuels, 100 percent of the potential combustion concentration (zero percent reduction);
 - (e) 520 ng/J (1.20 lb. per million Btu) heat input from any affected facility which combusts 100 percent anthracite or is classified as a resource recovery facility.
- Standards for Nitrogen Oxides. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides in excess of:
 - (a) 86 ng/J heat input for gaseous fuels except for coal-derived gaseous fuels;
 - (b) 130 ng/J heat input for liquid fuels except for coal-derived or shale oil;
 - (c) 210 ng/J heat input for coal-derived gaseous, liquid, and solid fuels; for shale oil; or for subbituminous coal;
 - (d) 260 ng/J heat input from bituminous and anthracite coal; from lignite except as noted in subsection (e) of this section; from all other solid fossil fuels not specified elsewhere in this rule;
 - (e) 340 ng/J heat input from any solid fuel containing more than 25% by weight of lignite mined in the Dakotas or Montana, and is combusted in a slag tap furnace;
 - (f) No limit for any solid fuel containing more than 25% by weight of coal refuse.

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[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 16-1981, f. & ef. 5-6-81

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Standards of Performance for Coal Preparation Plants

340-25-615 The pertinent federal rules are 40 CFR 60.250 to 60.254, also known as Subpart Y. These standards, summarizing the federal standards set forth in Subpart Y, for Particulate Matter and for Visible Emissions apply only to coal preparation plants which process more than 200 tons of coal per day. <u>Standards for</u> <u>Particulate Matter:</u> [An]No owner or operator shall [not]cause to be discharged into the atmosphere from <u>a</u>:

- [Any t]Thermal dryer, gases which:
 - (a) Contain particulate matter in excess of 0.070 g/dscm (0.031 gr/dscf);
- (b) Exhibit 20 percent opacity or greater.
- [Any p]Pneumatic coal cleaning equipment, gases which:
- (a) Contain particulate matter in excess of 0.040 g/dscm (0.018 gr/dscf);
- (b) Exhibit 10 percent opacity or greater.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1981, f. & ef. 5-6-81

Standards of Performance for Ferroalloy Production Facilities

340-25-620 The pertinent federal rules are 40 CFR 60.260 to 60.266, also known as Subpart Z. These standards, summarizing the federal standards set forth in Subpart Z, for Ferroalloy plants are applicable only to electric submerged arc furnaces and to dust handling equipment, built or modified after October 21, 1974:

- (1) Standard for Particulate Matter and Visible Emissions from Electric Arc Furnaces. No owner or operator shall cause to be discharged into the atmosphere from any electric submerged arc furnace any gases which:
 - (a) Exit from a control device and contain particulate matter in excess of 0.45 Kg/MW-hr (0.99 lb/MW-hr) while silicon metal, ferrosilicon, calcium silicon, or silicomanganese zirconium is being produced;

- (b) Exit from a control device and contain particulate matter in excess of 0.23 Kg/MW-hr (0.51 lb/MW-hr) while high-carbon ferrochrome, charge chrome, standard ferromanganese, silico-manganese, calcium carbide, ferrochrome silicon, ferromanganese silicon, or silvery iron is being produced;
- (c) Exit from a control device and exhibit 15 percent opacity or greater;
- (d) Escape the capture system at the tapping station and are visible for more than 40 percent of each tapping period, except a blowing tap is exempted.
- (2) Standard for Visible Emissions From Dust Handling Equipment. No owner or operator shall cause to be discharged into the atmosphere from any dust-handling equipment any gases which exhibit 10 percent opacity or greater.
- (3) Standard for Carbon Monoxide. No owner or operator shall cause to be discharged into the atmosphere from any electric submerged arc furnace any gases which contain, on a dry basis, 20 or greater volume percent of carbon monoxide.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1981, f. & ef. 5-6-81

- (1) No owner or operator shall cause to be discharged into the atmosphere from an electric arc furnace any gases which:
 - (a) Exit from a control device and contain particulate matter in excess of 12 mg/dscm (0.0052 gr/dscf);
 - (b) Exit from a control device and exhibit 3.0 percent opacity or greater;
 - (c) Exit from a shop and, due solely to operations of any electric arc furnaces or argon-oxygen decarburization vessels, exhibit 6 percent or greater shop opacity, except that if constructed before August 17, 1983 then shop opacity must be only less than 20 percent during charging periods and only less than 40 percent during tapping periods.

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(2) <u>Standard for Visible Emissions From Dust Handling Equipment.</u> No owner or operator shall cause to be discharged into the atmosphere from dust-handling equipment any gases which exhibit 10 percent opacity or greater.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1981, f. & ef. 5-6-81; DEQ 15-1985, f. & ef. 10-21-85

Standards of Performance for Kraft Pulp Mills

340-25-630 The pertinent federal rules are 40 CFR 60.280 to 60.286, also known as Subpart BB. The standards for kraft pulp mills' facilities, summarizing the federal standards set forth in Subpart BB, are applicable only to a recovery furnace, smelt dissolving tank, lime kiln, digester system, brown stock washer system, multiple-effect evaporator system, and condensate stripper system built or modified after September 24, 1976:

- (1) <u>Standard for Particulate Matter:</u> No owner or operator shall cause to be discharged into the atmosphere particulate matter <u>from</u>:
 - (a) **[From-a]A**ny recovery furnace:
 - (A) In excess of 0.10 g/dscm (0.044 gr/dscf) corrected to 8 percent oxygen; or
 - (B) Exhibit 35 percent opacity or greater.
 - (b) <u>{From a]Any</u> smelt dissolving tank in excess of 0.10 g/Kg black liquor solids, dry weight (0.20 lb/ton);
 - (c) [From a]Any lime kiln:
 - (A) In excess of 0.15 g/dscm (0.067 gr/dscf) corrected to 10 percent oxygen, when gaseous fossil fuel is burned;
 - (B) In excess of 0.30 g/dscm (0.13 gr/dscf) corrected to 10 percent oxygen, when liquid fossil fuel is burned.
- (2) <u>Standard for Total Reduced Sulfur:</u> No owner or operator shall cause to be discharged in the atmosphere Total Reduced Sulfur compounds, (TRS), which are hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide <u>from</u>:
 - (a) <u>[From a]Any</u> digester system, brown stock washer system, multiple-effect evaporator system, or condensate stripper system in excess of 5.0 ppm by volume on a dry basis, corrected to the actual oxygen content of the untreated gas stream;
 - (b) **[From a]A**ny straight kraft recovery furnace in excess of 5.0 ppm by volume on a dry basis corrected to 8 percent oxygen;

- (c) <u>{From a]A</u>ny cross recovery furnace in excess of 25 ppm by volume on a dry basis, corrected to 8.0 percent oxygen;
- (d) {From a]Any smelt dissolving tank in excess of 0.016 g/Kg black liquor solids, dry weight (0.033 lb/ton);
- (e) [From a]Any lime kiln in excess of 8.0 ppm by volume on a dry basis, corrected to 10 percent oxygen.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1981, f. & ef. 5-6-81; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86

Standards of Performance for Glass Manufacturing Plants

340-25-635 The pertinent federal rules are 40 CFR 60.290 to 60.296, also known as Subpart CC. The following particulate matter standard, summarizing the federal standards set forth in Subpart CC, applies to each glass melting furnace which commenced construction or modification after June 15, 1979, at glass manufacturing plants but does not apply to hand glass melting furnaces, furnaces with a design capacity of less than 4,550 kilograms of glass per day, or to all-electric melters. Standard for Particulate Matter: No owner or operator of a glass melting furnace subject to this rule shall cause to be discharged into the atmosphere from a glass melting furnace particulate matter exceeding the rates specified in 40 CFR 60.292.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1981, f. & ef. 5-6-81

Standards of Performance for Grain Elevators

340-25-640 The pertinent federal rules are 40 CFR 60.300 to 60.304, also known as Subpart DD. The following emission standards, summarizing the federal standards set forth in Subpart DD, apply to any grain terminal elevator (over 2.5 million bushel storage capacity) or any grain storage elevator (over 1 million bushel storage capacity) which commenced construction, modification, or reconstruction after August 3, 1978. Standards for Particulate Matter:

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- (1) On and after the 60th day of achieving the maximum production rate, but no later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any gases or fugitive dusts which exhibit opacity greater than:
 - (a) Zero percent opacity from any column dryer with column plate perforation exceeding 2.4 mm (0.094 inch) diameter;
 - (b) Zero percent opacity from any rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh;
 - (c) 5.0 percent opacity from any individual truck unloading station, railcar unloading station, or railcar loading station;
 - (d) Zero percent opacity from any grain handling operation;
 - (e) 10.0 percent opacity from any truck loading station;
 - (f) Any barge or ship loading station which exhibits greater than 20 percent opacity.

After initial startup, no owner or operator shall cause to be discharged into the atmosphere from any affected facility, except a grain dryer, any process emission which:

- (a) Contains particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf);
- (b) Exhibits greater than zero percent opacity.
- (3) The owner or operator of any barge or ship unloading station shall operate as follows:
 - (a) The unloading leg shall be enclosed from the top (including the receiving hopper) to the center line of the bottom pulley and ventilation to a control device shall be maintained on both sides of the leg and the grain receiving hopper;
 - (b) The total rate of air ventilated shall be at least 32.1 actual cubic meters per cubic meter of grain handling capacity (ca. 40 ft³/bu);
 - (c) Rather than meet the requirements of subsections (a) and (b) of this section the owner or operator may use other methods of emission control if it is demonstrated to the Department's satisfaction that they would reduce emissions of particulate matter to the same level or less.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 16-1981, f. & ef. 5-6-81

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Standards of Performance for Metal Furniture Surface Coating 340-25-642

- (1) The pertinent federal rules are 40 CFR 60.310 to 60.316, also known as Subpart EE. The following emission standard, summarizing the federal standard set forth in Subpart EE, applies to metal furniture surface coating operations in which organic coatings are applied which commenced construction, modification, or reconstruction after November 28, 1980, that use 3,842 liters of coating (as applied) or more per year.
- (2) Standard for Volatile Organic Compounds: No owner or operator shall cause to be discharged into the atmosphere Volatile Organic Compounds in excess of 0.90 kilograms per liter of coating solids applied.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 17-1983, f. & ef. 10-19-83; DEQ 19-1986, f. & ef. 11-7-86

Standards of Performance for Gas Turbines

340-25-645 The pertinent federal rules are 40 CFR 60.330 to 60.335, also known as Subpart GG. The following emission standards, summarizing the federal standards set forth in Subpart GG, apply to any stationary gas turbine with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (1,000 HP) for which construction, modification, or reconstruction was commenced after October 3, 1977:

- Standard for Nitrogen Oxides. No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any stationary gas turbine, nitrogen oxides in excess of the rates specified in 40 CFR 60.332.
 Standards for Sulfur Dioxide. Owners or operators shall:
 - Standards for Sulfur Dioxide. Owners or operators shall:
 (a) Not cause to be discharged into the atmosphere from any gas turbine any gases which contain sulfur dioxide in excess of 150 ppm by volume at 15 percent oxygen, on a dry basis; or
 - (b) Not burn in any gas turbine any fuel which contains sulfur in excess of 0.80 percent by weight.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1981, f. & ef. 5-6-81; DEQ 22-1982, f. & ef. 10-21-82; DEQ 24-1989, f. & cert. ef. 10-26-89

Standards of Performance for Lime Manufacturing Plants

340-25-647 The pertinent federal rules are 40 CFR 60.340 to 60.344, also known as Subpart HH. The following standards set forth in Subpart HH apply to each rotary lime kiln used in the manufacture of lime, except those at kraft pulp mills, for which construction or modification of any facility affected by[the] this rule commenced after May 3, 1977. Standards for Particulate: No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which:

- (1) Contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed.
- (2) Exhibit greater than 15 percent opacity when exiting from a dry emission control device.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15-1985, f. & ef. 10-21-85

Standards of Performance for Lead-Acid Battery Manufacturing Plants

340-25-650 The pertinent federal rules are 40 CFR 60.370 to 60.374, also known as Subpart KK. The following standards set forth in Subpart KK apply to any lead-acid battery manufacturing plant that produces or has the design capacity to produce in one day (24 hours) batteries containing an amount of lead equal to or greater than 5.9 Mg (6.5 tons), for which construction or modification of any facility affected by[the] this rule commenced after January 14, 1980. Standards for Lead: No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere <u>any gases from</u>:

- (1) [From a]Any grid casting facility [any-gases] that contain lead in excess of 0.40 milligram of lead per dry standard cubic meter of exhaust (0.000176 gr/dscf).
- (2) [From a]Any paste mixing facility [any-gases] that contain in excess of 1.00 milligram of lead per dry standard cubic meter of exhaust (0.00044 gr/dscf).
- (3) [From a]Any three-process operation facility [any gases] that contain in excess of 1.00 milligram of lead per dry standard cubic meter of exhaust (0.00044 gr/dscf).
- (4) <u>{From a}A</u>ny lead oxide manufacturing facility <u>{any-gases</u>} <u>}</u>that contain in excess of 5.0 milligrams of lead per kilogram of lead feed (0.010 lb/ton).
- (5) [From a]Any lead reclamation facility [any gases]that contain in excess of 4.50 milligrams of lead per dry standard cubic meter of exhaust (0.00198 gr/dscf).

- (6) [From a]Any other lead-emitting operation [any gases] that contain in excess of 1.00 milligram per dry standard cubic meter of exhaust (0.00044 gr/dscf).
- **[From a]A**ny affected facility other than a lead reclamation (7)facility [any gases]with greater than 0 percent opacity. [From a]Any lead reclamation facility [any gases]with
- (8) greater than 5 percent opacity.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 22-1982, f. & ef. 10-21-82

Standards of Performance for Metallic Mineral Processing Plants

340-25-652 The pertinent federal rules are 40 CFR 60.380 to 60.386 also known as Subpart LL. The following emission standards, summarizing the federal standards set forth in **Subpart LL**, apply to the following affected facilities in metallic mineral processing plants; each crusher and screen in open pit mines; at the mill or concentrator, each crusher, screen, bucket elevator, conveyor belt transfer point, thermal dryer, product packaging station, storage bin, enclosed storage area, truck loading station, truck unloading station, railcar loading station, and railcar unloading station. These facilities affected are only if construction, or modification, commenced after August 24, 1982, and if they are not located in underground mines.

Standards for Particulate Matter: No owner or operator shall cause to be discharged into the atmosphere from any affected facility:

- (1)Any stack emissions that contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.02 gr/dscf);
- (2) Any stack emissions that exhibit greater than 7 percent opacity;
- (3) Any process fugitive emissions that exhibit greater than 10 percent opacity.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 16-1984, f. & ef. 8-21-84

Standards of Performance for Phosphate Rock Plants

340-25-655 The pertinent federal rules are 40 CFR 60.400 to 60.404 also known as Subpart NN. The following standards set forth in Subpart NN apply to phosphate rock plants which have maximum plant production capacity greater than 3.6 megagrams per hour (4.0

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tons per hour), for which construction or modification of the facility affected by this rule commenced after September 21, 1979. Standard for Particulate: No owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere:

- (1)From any phosphate rock dryer any gases which:
 - Contain particulate matter in excess of 0.030 kilogram (a) per megagram of phosphate rock feed (0.060 lb/ton); or (b)
 - Exhibit greater than 10 percent opacity.
- From any phosphate rock calciner processing unbeneficiated (2)rock or blends of beneficiated and unbeneficiated rock, any qases which:
 - Contains particulate matter in excess of 0.12 kilogram (a) per megagram of phosphate rock feed (0.23 lb/ton); or Exhibit greater than 10 percent opacity. (b)
- (3) From any phosphate rock calciner processing beneficiated rock any gases which:
 - Contain particulate matter in excess of 0.055 kilogram (a) per megagram of phosphate rock feed (0.11 lb/ton); or
 - Exhibit greater than 10 percent opacity. (b)
 - From any phosphate rock grinder any gases which: Contain particulate matter in excess of 00.006 kilogram (a)
 - per megagram of phosphate rock feed (0.012 lb/ton); or Exhibit greater than zero percent opacity. (b)
- (5) From any ground phosphate rock handling and storage system any gases which exhibit greater than zero percent opacity.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 22-1982, f. & ef. 10-21-82

Standards of Performance for Publication Rotogravure Printing 340-25-660

- The pertinent federal rules are 40 CFR 60.430 to 60.435, also (1) known as Subpart QQ. The following emission standard, summarizing the federal standard set forth in Subpart QQ, applies to publication rotogravure printing presses, but not proof presses, which commenced construction, modification, or reconstruction after October 28, 1980.
- (2)Standard for Volatile Organic Compounds: No owner or operator shall cause to be discharged into the atmosphere Volatile Organic Compounds in excess of 16 per cent of the total mass of Volatile Organic Compounds solvent and water used at that facility during any one performance averaging period.

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[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 17-1983, f. & ef. 10-19-83

Standards of Performance for Tape and Label Surface Coating 340-25-662

- (1) The pertinent federal rules are 40 CFR 60.440 to 60.447, also known as Subpart RR. The following emission standard, summarizing the federal standard set forth in Subpart RR, applies to each coating line used in the manufacture of pressure sensitive tape and label materials which commenced construction, modification, or reconstruction after December 30, 1980.
- (2) Standard for Volatile Organic Compounds: no owner or operator shall cause to be discharged into the atmosphere Volatile Organic Compounds in excess of 0.20 kilograms per kilogram of coating solids applied, averaged over a calendar month.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1984, f. & ef. 8-21-84

Standards of Performance for Large Appliance Surface Coating 340-25-665

- (1) The pertinent federal rules are 40 CFR 60.450 to 60.456, also known as Subpart SS. The following emission standard, summarizing the federal standard set forth in Subpart SS, applies to large appliance surface coating lines which commenced construction, modification, or reconstruction after December 24, 1980.
- (2) Standard for Volatile Organic Compounds: No owner or operator shall cause to be discharged into the atmosphere Volatile Organic Compounds in excess of 0.90 kilograms per liter of coating solids applied.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 17-1983, f. & ef. 10-19-83

Standards of Performance for Metal Coil Surface Coating

340-25-670 The pertinent federal rules are 40 CFR 60.460 to 60.466, also known as Subpart TT. The following emission standard, summarizing the federal standard set forth in Subpart TT, applies to each prime coating operation, and/or to each finish coating operation, at a metal coil surface coating facility, which commenced construction, modification, or reconstruction after January 5, 1981.

Standards for Volatile Organic Compounds: No owner or operator shall cause to be discharged into the atmosphere more than:

- (1) 0.28 kilogram VOC per liter (kg VOC/1) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s).
- (2) 0.14 kg VOC/1 of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency.
- (3) 10 percent of the VOC's applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency.
- (4) A value between 0.14 (or a 90 percent emissions reduction) and 0.28 kg VOC/1 of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 17-1983, f. & ef. 10-19-83

Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture

340-25-675 The pertinent federal rules are 40 CFR 60.470 to 60.474, also known as Subpart UU. The following emission standards, summarizing the federal standards set forth in Subpart UU, applies to each saturator and each mineral handling and storage facility at asphalt roofing plants; and each asphalt storage tank and each blowing still at asphalt processing plants, petroleum refineries, and asphalt roofing plants. The standards apply to facilities commenced after November 18, 1980.

- (1) Standards for Particulate Matter: No owner or operator shall cause to be discharged into the atmosphere from any saturator:
 - (a) Particulate matter in excess of:

- 0.04 kilograms of particulate per megagram of (A) asphalt shingle or mineral-surfaced roll roofing produced; or
- 0.4 kilograms per megagram of saturated felt or (B) smooth-surfaced roll roofing produced.
- (b) Exhaust gases with opacity greater than 20 percent; and
- Any visible emissions from a saturator capture system (C) for more than 20 percent of any period of consecutive valid observations totaling 60 minutes.
- No owner or operator shall cause to be discharged into the (2) atmosphere from any blowing still:
 - Particulate matter in excess of 0.67 kilograms of (a) particulate per megagram of asphalt charged to the still when a catalyst is added to the still; and
 - Particulate matter in excess of 0.71 kilograms of (b) particulate per megagram of asphalt charged to the still when a catalyst is added to the still and when No. 6 fuel oil is fired in the afterburner; and
 - Particulate matter in excess of 0.60 kilograms of (C) particulate per megagram of asphalt charged to the still during blowing without a catalyst; and
 - (d) Particulate matter in excess of 0.64 kilograms of particulate per megagram of asphalt charged to the still during blowing without a catalyst and when No. 6 fuel oil is fired in the afterburner; and
 - (e) Exhaust gases with an opacity greater than 0 percent unless an opacity limit for the blowing still when fuel used to fire the afterburner has oil is been established by the Department.
- (3) No owner or operator shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period.
- No owner or operator shall cause to be discharged into the (4) atmosphere from any mineral handling and storage facility emissions with opacity greater than 1 percent.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 17-1983, f. & ef. 10-19-83

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 25 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Standards of Performance for VOC Leaks from Synthetic Organic Chemical Manufacturing

340-25-680 The pertinent federal rules are 40 CFR 60.480 to 60.489, also known as Subpart VV. The emissions standards, in the federal standards set forth in Subpart VV, apply to VOC leaks from the following equipment which commenced construction or modification after January 5, 1981:

- (1) The affected facilities are those in the Synthetic Organic Chemicals Manufacturing Industry with a design capacity of 1000 Mg/yr (1102 tons/yr) or greater:
 - (a) Pumps in light liquid service;
 - (b) Compressors;
 - (c) Pressure relief devices in gas/vapor service;
 - (d) Sampling connection systems;
 - (e) Open-ended valves or lines;
 - (f) Valves;
 - (g) Closed vent systems and control devices.
- (2) The detailed standards are found in f seven pages of f federal rules, along with the record keeping and reporting requirements.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1984, f. & ef. 8-21-84

Standards of Performance for Beverage Can Surface Coating

340-25-685 The pertinent federal rules are 40 CFR 60.490 to 60.496, also known as Subpart WW. The following emission standard, summarizing the federal standard set forth in Subpart WW, applies to beverage can surface coating lines which commenced construction, modification, or reconstruction after November 26, 1980.

Standard for Volatile Organic Compounds: No owner or operator shall cause to be discharged into the atmosphere Volatile Organic Compounds (VOC) that exceed the following volume-weighted calendar month average emissions:

- 0.29 kilograms of VOC per liter of coating solids from each two piece can exterior base coating operation, except clear base coat.
- (2) 0.46 kilograms of VOC per liter of coating solids from each two-piece can clear base coating operation and from each overvarnish coating operation.
- (3) 0.89 kilograms of VOC per liter of coating solids from each two-piece can inside spray coating operation.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1984, f. & ef. 8-21-84

Standards of Performance for Bulk Gasoline Terminals

340-25-690 The pertinent federal rules are 40 CFR 60.500 to 60.506, also known as **Subpart XX**. The following emission standard, summarizing the federal standard set forth in **Subpart XX**, applies to each gasoline tank truck loading rack at a Bulk Gasoline Terminal, which commenced construction, modification, or reconstruction after August 18, 1983.

Standards for <u>{VOC}Volatile Organic Compounds</u>:

- (1) The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 35 milligrams of total organic compounds per liter of gasoline loaded, except as noted in section (2) of this rule.
- (2) For each affected facility equipped with an existing vapor processing system, the emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 80 milligrams of total organic compounds per liter of gasoline loaded.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 16-1984, f. & ef. 8-21-84

345-25-700 [Renumbered to 340-25-800]

Standards of Performance for Flexible Vinyl and Urethane Coating and Printing

340-25-701 The pertinent federal rules are 40 CFR 60.580 to 60.585, also known as Subpart FFF. The following emission standards set forth in Subpart FFF apply to each rotogravure printing line used to print or coat flexible vinyl or urethane products, for which construction, modification, or reconstruction was commenced after January 18, 1983. Standards for Volatile Organic Compounds (VOC); Each owner or operator subject to this subpart shall either:

- (1) Use inks with a weighted average VOC content of less than 1.0 kilogram VOC per kilogram ink solids.
- (2) Reduce VOC emissions to the atmosphere by 85 percent.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15-1985, f. & ef. 10-21-85

Standards of Performance for VOC Leaks in Petroleum Refineries

340-25-702 The pertinent federal rules are 40 CFR 60.590 to 60.593, also known as Subpart GGG. The following emission standards set forth in Subpart GGG apply to volatile Organic Compound (VOC) leaks from petroleum refineries, modified or constructed after January 4, 1983:

(1) VOC leaks from the following components:

- (a) Pumps;
- (b) Compressors;
- (c) Pressure relief devices;
- (d) Sampling connection systems;
- (e) Open-ended valves or lines;
- (f) Valves.
- (2) The detailed standards, recordkeeping and reporting requirements are found in - seven pages of federal rules (see) 40 CFR 60.592, which references 60.482-1 to 60.482-10); along with the recordkeeping and reporting requirements.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u><u>&</u> 468A</u> Hist.: DEQ 15-1985, f. & ef. 10-21-85

Standards of Performance for Synthetic Fiber Plants

340-25-704 The pertinent federal rules are 40 CFR 60.600 to 60.604, also known as Subpart HHH. The following emission standards set forth in Subpart HHH apply to each solvent-spun synthetic fiber process that produces more than 500 megagrams of fiber per year, that commenced construction or reconstruction after November 23, 1982. Standards for Volatile Organic Compounds (VOC): No owner or operator shall cause the discharge into the atmosphere from any process, VOC in excess of:

- (1) 10 kilograms of VOC per megagram of solvent fed to the spinning solution preparation system or precipitation bath for processes producing acrylic fibers, or producing both acrylic and non-acrylic fiber types.
- (2) 17 kilograms of VOC per megagram of solvent feed if producing only non-acrylic fiber types.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15-1985, f. & ef. 10-21-85

340-25-705 [Renumbered to 340-25-805]

Standards of Performance for Petroleum Dry Cleaners

340-25-706 The pertinent federal rules are 40 CFR 60.620 to 60.625, also known as Subpart JJJ. The following work practice standards set forth in Subpart JJJ apply to petroleum dry cleaning plants with a total dryer capacity equal to or greater than 38 kilograms (84 pounds), for which construction or modification was commenced after December 14, 1982. Standards for Volatile Organic Compounds:

- (1) Each dryer shall be a solvent recovery dryer.
- (2) Each filter shall be a cartridge filter, which shall be drained in its sealed housing for at least 8 hours prior to its removal.
- (3) Dryers, washers, filters, stills, and settling tanks shall have a leak repair instruction posted on the unit and printed in the operating manual by the manufacturer.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15-1985, f. & ef. 10-21-85

Standards of Performance for Leaks from Onshore Natural Gas Processing Plants

340-25-708 The pertinent federal rules are 40 CFR 60.630 to 60.636, also known as Subpart KKK. The emission standards set forth in Subpart KKK apply to each onshore natural gas processing plant that commenced construction, reconstruction, or modification after January 20, 1984. The detailed standards for VOC leaks from these plants are set forth in 40 CFR 60.632 through 60.634[7 three pages of detailed rules].

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 19-1986, f. & ef. 11-7-86

Standards of Performance for SO_2 from Onshore Natural Gas Processing Plants

340-25-710 The pertinent federal rules are 40 CFR 60.640 to 60.648, also known as Subpart LLL. The emission standards set forth in Subpart LLL, paragraph 60.642 and Tables 1 and 2 attached thereto, apply to each onshore natural gas processing plant that commenced construction, or modification after January 20, 1984, which emits 2 long tons per day or more of hydrogen sulfide (expressed as sulfur) in the acid gas.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 19-1986, f. & ef. 11-7-86

Standards of Performance for Fiberglass Insulation Manufacturing

340-25-715 The pertinent federal rules are 40 CFR 60.680 to 60.685, also known as Subpart PPP. The following emission standard set forth in Subpart PPP applies to each rotary spin wool fiberglass insulation manufacturing line, for which construction, modification, or reconstruction was commenced after February 7, 1984. Standard for Particulate: No owner or operator shall cause to be discharged into the atmosphere from an affected facility any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 15-1985, f. & ef. 10-21-85

Standards of Performance for Surface Coating of Plastic Parts for Business Machines

340-25-725 The pertinent federal rules are 40 CFR 60.720 to 60.725, also known as Subpart TTT. The following emission standard, summarizing the federal standard set forth in Subpart TTT, applies to each spray booth in which plastic parts for use in the manufacture of business machines receive prime coats, color coats, texture coats, or touch-up coats. The standard applies to any affected facility which commenced construction, modification, or reconstruction after January 8, 1986. Standards for Volatile Organic Compounds: No owner or operator shall cause to be discharged into the atmosphere Volatile Organic Compounds (VOC) that exceed the following:

(1) 1.5 kilograms of VOC per liter of coating solids applied from prime coating and color coating.

(2) 2.3 kilogram of VOC per liter of coating solids applied from texture coating and touch-up <u>[casting]coating</u>.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 24-1989, f. &cert. ef. 10-26-89

Compliance

340-25-800 Compliance with standards set forth in [this rule]OAR 340-25-505 through 340-25-800 shall be determined by performance tests and monitoring methods as set forth in the Federal Regulation adopted by reference in OAR 340-25-530.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; Renumbered from 340-25-540; DEQ 15-1985, f. & ef. 10-21-85; Renumbered from 340-700

More Restrictive Regulations

340-25-805 If at any time there is a conflict between Department or regional authority rules and the Federal Regulation (40 CFR, Part 60), the more stringent shall apply.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; Renumbered from 340-25-545; DEQ 15-1985, f. & ef. 10-21-85; Renumbered from 340-25-705

Incinerator Regulations

Purposes and Application

340-25-850 The purpose of <u>these-rules</u><u>OAR</u> 340-25-850 <u>through</u> 340-25-905 is to establish state of the art emission standards, design requirements, and performance standards for all solid and infectious waste and crematory incinerators in order to minimize air contaminant emissions and provide adequate protection of public health. [The rules] Except as provided in OAR 340-25-885 and 340-25-905, OAR 340-25-850 through 340-25-905 apply to all existing waste incinerators and to all that will be built, modified, or installed in the State of Oregon. <u>OAR 340-25-860</u> through 340-35-885 apply to solid waste facilities and infectious waste facilities. OAR 340-25-890 through 340-25-905 apply to crematory incinerators.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Definitions

340-25-855 As used in OAR 340-25-850 through 340-25-905:

- (1) "Acid Gases" means any exhaust gas which includes hydrogen chloride and sulfur dioxide.
- (2) "Best Available Control Technology (BACT)" means an emission limitation as defined by OAR 340-20-225(4).
- (3) "Continuous Emission Monitoring" (CEM) means a monitoring system for continuously measuring the emissions of a pollutant from an affected incinerator. Continuous monitoring equipment and operation shall be certified in accordance with EPA performance specifications and quality assurance procedures outlined in 40 CFR 60, Appendices B and F, and the Department's CEM Manual.
- (4) "Crematory Incinerator" means an incinerator used solely for the cremation of human and animal bodies.
- (5) "Department" means the Department of Environmental Quality.
- (6) "Dry Standard Cubic Foot" means the amount of gas that would occupy a volume of one cubic foot, if the gas were free of uncombined water at standard conditions. When applied to combustion flue gases from waste or refuse burning, "Standard Cubic Foot (SCF)" implies adjustment of gas volume to that which would result at a concentration of 7% oxygen or 50% excess air.
- (7) <u>"Existing" means constructed or modified prior to March 13,</u> 1990.
- (7)](8) "Emission" means a release into the atmosphere of air contaminants.
- (8)](9) "Fugitive Emissions" means the same as defined in OAR 340-20-225(11).
- [(9)](10) "Incinerator" means any structure or furnace in which combustion takes place, the primary purpose of which is the reduction in volume and weight of unwanted material.
- [(10)](11) "Infectious Waste" means waste as defined in ORS 763, Oregon Laws 1989, which contains or may contain any disease producing microorganism or material, and includes, but not limited to the following:
 - (a) "Biological waste", which includes blood and blood products, and body fluids that cannot be directly discarded into a municipal sewer system, and waste materials saturated with blood or body fluids, but does not include soiled diapers;

- (b) "Cultures and stocks", which includes etiologic agents and associated biologicals; including specimen cultures and dishes, devices used to transfer, inoculate and mix cultures, wastes from production of biologicals, and serums and discarded live and attenuated vaccines. "Cultures" does not include throat and urine cultures;
- (c) "Pathological waste", which includes biopsy materials and all human tissues, anatomical parts that emanate from surgery, obstetrical procedures, autopsy and laboratory procedures and animal carcasses exposed to pathogens in research and the bedding and other waste from such animals. "Pathological wastes" does not include teeth or formaldehyde or other preservative agents.
- (d) "Sharps", which includes needles, IV tubing with needles attached, scalpel blades, lancets, glass tubes that could be broken during handling and syringes that have been removed from their original sterile containers.
- [(11)](12) "Infectious Waste Facility" or "Infectious Waste Incinerator" means an incinerator which is operated or utilized for the disposal or treatment of infectious waste, including combustion for the recovery of heat, and which utilizes high temperature thermal destruction technologies.
- (13) "New" means constructed or modified on or after March 13, 1990.
- [(12)](14) "Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background.
- "Particulate Matter" [(13)](15) means all solid or liquid material, other than uncombined water, emitted to the ambient air as measured by EPA Method 5 or an equivalent test method in accordance with the Department Source Test Manual. Particulate matter emission determinations by EPA Method 5 shall consist of the average of three (3) separate consecutive runs having a minimum sampling time of 60 minutes each and a minimum sampling volume of 30.0 dscf each.
- [(14)](16) "Parts Per Million (ppm)" means parts of a contaminant per million parts of gas by volume on a dry-gas basis (1 ppm equals 0.0001% by volume).
- f(15) f(17) "Person" means individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.

- "Primary Combustion Chamber" means the discrete [(16)]**(18)** equipment, chamber or space in which drying of the waste, pyrolysis, and essentially the burning of the fixed carbon in the waste occurs.
- "Secondary" f(]or "Finalf) Combustion Chamber" means [(17)]**(19)** the discrete equipment, chamber, or space in which the products of pyrolysis are combusted in the presence of excess air such that essentially all carbon is burned to carbon dioxide.
- "Solid Waste" means refuse, more than 50 percent of [(18)](20) which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as metal, glass, and rock.
- "Solid Waste Facility" or "Solid Waste Incinerator" $\frac{(19)}{(21)}$ means an incinerator which is operated or utilized for the disposal or treatment of solid waste including combustion for the recovery of heat, and which utilizes high temperature thermal destruction technologies.
- "Standard Conditions" means temperature of 68 degrees [(20)](22) fahrenheit (15.6 degrees Celsius) and a pressure of 14.7 pounds per square inch absolute (1.03 kilograms per square centimeter).
- "Startup/Shutdown" means the time during which an air $\frac{(21)}{(23)}$ contaminant source or emission control equipment is brought into normal operation and normal operation is terminated, respectively.
- "Transmissometer" means a device that measures opacity [(22)]**(24)** and conforms to EPA Specification Number 1 in Title 40 Code of Federal Regulations, Part 60, Appendix B.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183 [.341 &], 468 [.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Solid and Infectious Waste Incinerators

Best Available Control Technology 340-25-860

(1)Notwithstanding the specific emission limits set forth in OAR 340-25-865, in order to maintain overall air quality at the highest possible levels, all [incinerator] solid waste facilities and infectious waste facilities are required to

use **[b]B**est **[a]A**vailable **[c]C**ontrol **[t]T**echnology (BACT). In no event shall the application of BACT result in emissions of any air contaminant which would exceed the emission limits set forth in[these rules] OAR 340-25-860 through 885.

(2) All installed equipment shall be operated and maintained in such a manner that emissions of air contaminants are kept at lowest possible levels.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Emissions Limitations

340-25-865 No person shall cause, suffer, allow, or permit the operation of any[waste incinerator] solid waste facility or <u>infectious waste facility</u> in a manner which violates the following emission limits and requirements:

- (1) Particulate Emissions:
 - (a) For new incinerator facilities, emissions from each stack shall not exceed 0.015 grains per dry standard cubic foot of exhaust gases corrected to 7 percent 0_2 at standard conditions;
 - (b) For existing incinerator facilities, emissions from each stack shall not exceed 0.030 grains per dry standard cubic foot of exhaust gases corrected to 7 percent 0_2 at standard conditions.
- (2) Hydrogen Chloride (HCl) for all incinerator facilities, emissions of hydrogen chloride from each stack shall not exceed 50 ppm during any 60-minute period corrected to 7 percent 02; or shall be reduced by at least ninety (90) percent by weight on an hourly basis.
- (3) Sulfur Dioxide (SO₂) for all incinerator facilities, emissions of sulfur dioxide from each stack shall not exceed 50 ppm as a running three-hour average corrected to 7 percent 02; or shall be reduced by at least seventy (70) percent by weight on a three-hour basis.
- (4) Carbon Monoxide (CO) for all incinerator facilities, emissions of carbon monoxide from each stack shall not exceed 100 ppm as a running eight-hour average corrected to 7 percent 0₂.
- (5) Nitrogen Oxide (NO_x) . Emissions of nitrogen oxide from each stack shall not exceed 200 ppm as a running 24-hour average corrected to 7 percent O_2 for new incinerator facilities capable of processing more than 250 tons/day of wastes.
- (6) Opacity. The opacity as measured visually or by a transmissometer shall not exceed 10 percent for a period aggregating more than six minutes in any 60 minute period.

- (7) Fugitive Emissions. Solid waste incinerator facilities shall be operated in a manner which prevents or minimizes fugitive emissions, including the paving of all normally traveled roadways within the plant boundary and enclosing all material transfer points.
- (8) Other Wastes. No <u>solid waste incinerator or infectious waste</u> incinerator[subject to these rules] shall burn radioactive or hazardous waste, or any other waste not specifically authorized in the Department's Air Contaminant Discharge Permit.
- (9) Other Contaminants. In the absence of an air-contaminant-specific emission limit or ambient air quality standard, the Department may establish by permit emission limits for any hazardous air contaminants that are more protective of human health and the environment for any solid waste incinerator or infectious waste incinerator for subject to these rules.

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Design and Operation 340-25-870

- (1) Temperature and Residence Time. Each incinerator shall be designed and operated to maintain combustion gases at a minimum temperature of 1800 °F. for at least one second residence time. For a multi-chamber incinerator, these parameters must be met after the primary combustion chamber, which shall be maintained at no less than 1400 °F.
- (2) Auxiliary Burners. Each incinerator shall be designed and operated with automatically controlled auxiliary burners capable of maintaining the combustion chamber temperatures specified in section (1) of this rule, and shall have sufficient auxiliary fuel capacity to maintain said temperatures.
- (3) Interlocks. Each incinerator shall be designed and operated with an interlock system which:
 - (a) Prevents charging until the final combustion chamber reaches 1800 °F.;
 - (b) For batch-fed incinerators, prevents recharging until each combustion cycle is complete;
 - (c) Ceases charging if the incinerator temperature falls below either 1800 °F. for any continuous 15-minute period; and

- (d) Ceases charging if carbon monoxide levels exceed 150 ppm, corrected to 7 percent 0_2 over a continuous 15-minute period. Existing incinerators may request from the Department, and the Department may grant, an exemption for installing an interlock system, if it can be shown to the satisfaction of the Department that such a system would not allow sufficient flexibility in operation, or that significant technical or economic constraints would prevent retrofitting.
- (4) Air Locks. All infectious waste facilities with mechanically fed incinerators shall be designed and operated with an air lock control system to prevent opening the incinerator to the room environment. The volume of the loading system must be designed so as to prevent overcharging to assure complete combustion of the waste.
- (5) Flue Gas Outlet Temperature. Each incinerator shall be designed and operated such that the flue gas temperature at the outlet from the primary control device does not exceed 350 °F., unless it can be demonstrated that a greater collection of condensible matter can be achieved at a higher outlet temperature.
- (6) Combustion efficiency. Except during periods of startup and shutdown, all waste incinerators shall achieve a combustion efficiency of 99.9 percent based on a running eight-hour average, computed as follows:

$$\frac{\text{CE} = CO_2}{x - 100}$$

 $(co_2 + co)$]

$$\frac{CE = CO_2}{(CO_1 + CO)} \times 100$$

- CO = Carbon monoxide in the exhaust gas, parts per million by volume (dry)
- CO₂ = Carbon dioxide in the exhaust gas, parts per million by volume (dry)
- (7) Stack Height. All incinerator stacks shall be designed in accordance with Good Engineering Practice (GEP) as defined in **Title 40, Code of Federal Regulations, Parts 51.100(ii)** and **5118**, in order to assure compliance with applicable air standards, and to avoid the flow of stack pollutants into any building ventilation intake plenum.
- (8) Operator Training and Certification. Each incinerator shall be operated at all times under the direction of one or more individuals who have received training necessary for proper operation. A description of the training program shall be

submitted to the Department for approval. A satisfactory training program shall consist of any of the following:

- (a) Certification by the American Society of Mechanical Engineers (ASME) for solid waste incinerator operation; or
- (b) For infectious waste incineration, successful completion of EPA's Medical Waste Incinerator Operating training course; or
- (c) Other certification or training by a qualified organization as to proper operating practices and procedures, which has been pre-approved by the Department prior to enrollment. In addition, the owner or operator of an incinerator facility shall develop and submit a manual for proper operation and maintenance, to be reviewed with employees responsible for incinerator operation on an annual basis.
- (9) In cases where incinerator operation may cause odors which unreasonably interfere with the use and enjoyment of property, the Department may require by permit the use of good practices and procedures to prevent or eliminate those odors.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Continuous Emission Monitoring

340-25-875

- (1) All solid waste incinerators shall operate and maintain continuous monitoring for the following:
 - (a) Sulfur dioxide;
 - (b) Carbon monoxide;
 - (c) Opacity;
 - (d) Final Combustion Chamber Exit Temperature;
 - (e) Control Equipment Outlet Temperature;
 - (f) Oxygen; and
 - (g) Nitrogen Oxide new facilities only (over 250 tons/day).

(2) All infectious waste incinerators shall operate and maintain continuous monitoring for the following:

- (a) Carbon monoxide;
- (b) Opacity; and
- (c) Final Combustion Chamber Exit Temperature.

- (3) The Department may at any time[-following the effective date of these rules,] require the installation of hydrogen chloride monitors for any solid and infectious waste incinerator, or sulfur dioxide monitors for any infectious waste incinerator, if the Department determines such monitoring is necessary, in order to demonstrate compliance with the hydrogen chloride emission limit.
- (4) The monitors specified above shall comply with EPA performance specifications in Title 40, Code of Federal Regulations, Part 60, Appendix B, and the Department's CEM Manual. All monitoring equipment shall be located so as to accurately monitor emission levels, in order to demonstrate compliance with OAR 340-25-865.

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Reporting and Testing 340-25-880

- (1) Reporting:
 - (a) Stack test results shall be reported to the Department within sixty (60) days of completion;
 - (b) All records associated with continuous monitoring data including, but not limited to, original data sheets, charts, calculations, calibration data, production records and final reports shall be maintained for a continuous period of at least one year and shall be furnished to the Department upon request.
- (2) Source Testing:
 - (a) All <u>solid waste incinerators and infectious</u> waste incinerators [subject to these rules] must be tested to demonstrate compliance with the standards in [these rules] OAR 340-25-860 through 340-25-885;
 - (b) Source testing shall be conducted at the maximum design rate using waste that is representative of normal operation. If requested by the owner/operator, source testing may be performed at a lower rate, however, permit limits will be established based on the lower rate of operation;

- (c) Unless otherwise specified by the Department, each incinerator shall be tested at start-up and annually thereafter for particulate, hydrogen chloride, sulfur dioxide, and carbon monoxide emissions.
- (3) Hazardous or Toxic Air Contaminant Source Testing. The Department may at any time after the effective date of this rule,] conduct or require source testing and require access to information specific to the control, recovery, or release of hazardous or toxic air contaminants.

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Compliance

340-25-885

- (1)All existing waste incinerators must demonstrate compliance with the applicable provisions of [these rules] OAR 340-25-860 through 340-25-885 by March 13, 1995 [within five (5) years of the effective date of these rules], or by the date required by applicable federal guidelines adopted by the Environmental Protection Agency, whichever is sooner. Existing data such as that collected in accordance with the requirements of an Air Contaminant Discharge Permit may be used to demonstrate compliance. {(2) All existing waste incinerators shall be subject to these rules upon demonstration of compliance pursuant to paragraph (1) of this section.] Until compliance is demonstrated, existing sources shall {continue to}be subject to{ the provisions of} OAR 340-21-025 and 340-21-027 and all applicable permit conditions.
- (3) (2) New solid waste incinerators and infectious waste incinerators must demonstrate compliance with the emission limits and operating requirements of these rules OAR 340-25-860 through 340-25-885 in accordance with a schedule established by the Department before commencing regular operation.
- (4)](3) Compliance with f these rules] OAR 340-25-860 through 340-25-885 does not relieve the owner or operator of the source from the responsibility to comply with requirements of the Department's Solid and Hazardous Waste rules, Oregon Administrative Rules, Chapter 340, Division 61, regarding the disposal of ash generated from waste incinerators.

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Crematory Incinerators

Emission Limitations

- 340-25-890
- (1) No person shall cause to be emitted particulate matter from any crematory incinerator in excess of 0.080 grains per dry standard cubic foot of exhaust gases corrected to 7 percent 0_2 at standard conditions.
- (2) Opacity. No visible emissions shall be present except for a period aggregating no more than six minutes in any 60 minute period.
- (3) Odors. In cases where incinerator operation may cause odors which unreasonably interfere with the use and enjoyment of property, the Department may require by permit the use of good practices and procedures to prevent or eliminate those odors.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90; AQ 20-1992, f & cert. ef. 8-3-92

Design and Operation 340-25-895

- (1) Temperature and Residence Time. The temperature at the final combustion chamber shall be 1800 °F. for new incinerators, and 1600 °F. for existing, with a residence time of at least 0.5 second. At no time while firing waste shall the temperature in the final chamber fall below 1400 °F.
- (2) Operator Training and Certification. Each crematory incinerator shall be operated at all times under the direction of individuals who have received training necessary for proper operation. A description of the training program shall be submitted to the Department for approval.
- (3) As defined in OAR 340-25-855(4) [-of these rules], crematory incinerators may only be used for incineration of human and animal bodies. No waste, including infectious waste as defined in OAR 340-25-855(10) [of these rules], may be incinerated unless specifically authorized in the Department's Air Contaminant Discharge Permit.

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90; AQ 20-1992, f. & cert. ef. 8-3-92

Monitoring and Reporting 340-25-900

- (1) All crematory incinerators shall operate and maintain continuous monitoring for final combustion chamber exit temperature.
- (2) All records associated with continuous monitoring data including, but not limited to, original data sheets, charts, calculations, calibration data, production records and final reports shall be maintained for a continuous period of at least one year and shall be furnished to the Department upon request.
- (3) All crematory incinerators must conduct testing to demonstrate compliance with[these rules] OAR 340-25-890 <u>through 340-25-905</u> in accordance with a schedule specified by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 183[.341-&], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90

Compliance

340-25-905

- (1) All existing crematory incinerators must demonstrate compliance with the applicable provisions of [-these rules] OAR 340-25-890 through 340-25-905 [within three (3) years of the effective date of these-rules]by March 13, 1993. Existing data such as that collected in accordance with the requirements of an Air Contaminant Discharge Permit may be used to demonstrate compliance. [(2) All existing crematory incinerators shall be subject to these rules upon demonstration of compliance is demonstrated, existing sources shall continue to be subject to the provisions of OAR 340-21-025 and all applicable permit conditions.
- (3) (2) New crematory incinerators must demonstrate compliance with the emission limits and operating requirements off these rules OAR 340-25-890 through 340-25-905 in accordance with a schedule established by the Department before commencing regular operation.

Stat. Auth.: ORS Ch. 183[.341 &], 468[.370] & 468A Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90; AQ 20-1992, f. & cert. ef. 8-3-92

TABLE I (340-25-110) PROCESS WEIGHT TABLE

Process <u>Wt/hr (lbs)</u>	Maximum Weight <u>Disch/hr (lbs)</u>	Process <u>Wt/hr (lbs)</u>	Maximum Weight <u>Disch/hr (lbs)</u>
50	.24	3400	5.44
100	.46	3500	5.52
150	.66	3600	5.61
200	.85	3700	5.69
250	1.03	3800	5.77
300	1.20	3900	5.85
350	1.35	4000	5.93
400	1.50	4100	6.01
450	1.63	4200	. 6.08
500	1.77	4300	6.15
550	1.89	4400	6.22
600	2.01	4500	6.30
650	2.12	4600	6.37
700	2.24	4700	6.45
750	2.34	4800	6.52
800	2.43	4900	6.60
850	2.53	5000	6.67
900	2.62	5500	7.03
950	2.72	6000	7.37
1000	2.80	6500	7.71
1100	2.97	7000	8.05
1200	3.12	7500	8.39
1300	3.26	8000	8.71
1400	3.40	8500	9.03
1500 1600	3.54	9000 9500	9.36 9.67
1700	3.66 3.79	10000	10.0
1800	3.91	11000	10.63
1900	4.03	12000	11.28
2000	4.14	13000	11.89
2100	4.24	14000	12.50
2200	4.34	15000	13.13
2300	4.44	16000	13.74
2400	4.55	17000	14.36
2500	4.64	18000	14.97
2600	4.74	19000	15.58
2700	4.84	20000	16.19
2800	4.92	30000	22.22
2900	5.02	40000	28.3
3000	5.10	50000	34.3
3100	5.18	60000	40.0
3200	5.27	or	
3300	5.36	more	

DIVISION 26

[RULES FOR OPEN]FIELD BURNING <u>RULES</u> (Willamette Valley)

Introduction

340-26-001

- (1) [These rules]This Division appl[y]ies to the open field burning, propane flaming, and stack and pile burning of all perennial and annual grass seed and cereal grain crops or associated residue within the Willamette Valley. The open burning of all other agricultural waste material, including sanitizing perennial and annual grass seed crops by open burning in counties outside the Willamette Valley, (referred to as "fourth priority agricultural burning") is governed by OAR Chapter 340, Division 23, Rules for Open Burning. Enforcement procedure and civil penalties for open field burning, propane flaming, and stack and pile burning are established in Oregon Administrative Rules Chapter 340 Division 12.
 - (2) Organization of rules:
 - (a) OAR 340-26-003 is the policy statement of the Environmental Quality Commission setting forth the goals of[these rules] this Division;
 - (b) OAR 340-26-005 contains definitions of terms which have specialized meanings within the context off these rules<u>]</u> this Division;
 - (c) OAR 340-26-010 lists general provisions and requirements pertaining to all open field burning, propane flaming, and stack and pile burning with particular emphasis on the duties and responsibilities of the grower registrant;
 - (d) OAR 340-26-012 lists procedures and requirements for registration of acreage, issuance of permits, collection of fees, and keeping of records, with particular emphasis on the duties and responsibilities of the local permit issuing agencies;
 - (e) OAR 340-26-013 establishes acreage limits and methods of determining acreage allocations;
 - (f) OAR 340-26-015 establishes criteria for authorization of open field burning, propane flaming, and stack and pile burning pursuant to the administration of a daily smoke management control program;
 - (g) OAR 340-26-031 establishes special provisions pertaining to field burning by public agencies for official purposes, such as "training fires";

- (h) OAR 340-26-033 establishes special provisions pertaining to "preparatory burning";
 (i) OAR 340-26-035 establishes special provisions
- OAR 340-26-035 establishes special provisions pertaining to open field burning for experimental purposes;
- (j) OAR 340-26-040 establishes special provisions and procedures pertaining to emergency cessation of burning;
- (k) OAR 340-26-045 establishes provisions pertaining to propane flaming;
- (1) OAR 340-26-055 establishes provisions pertaining to "stack and pile burning".

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 5-1984, f. & ef. 3-7-84; DEQ 12-1984, f. & ef. 7-13-84; DEQ 11-1987, f. & ef. 6-15-87; AQ 17, f. & ef. 3-11-92

Policy

340-26-003 In the interest of public health and welfare, it is the declared public policy of the State of Oregon to reduce the practice of open field burning while developing and providing alternative methods of field sanitation and alternative methods of utilizing and marketing crop residues and to control, reduce, and prevent air pollution from open field burning, propane flaming, and stack and pile burning by smoke management. In developing and carrying out a smoke management control program it is the policy of the Environmental Quality Commission: (1) To provide for a maximum level of burning with a minimum

- level of smoke impact on the public, recognizing:
 - (a) The importance of flexibility and judgment in the daily decision-making process, within established and necessary limits;
 - (b) The need for operational efficiency within and between each organizational level;
 - (c) The need for effective compliance with all regulations and restrictions.
- (2) To study, develop and encourage the use of reasonable and economically feasible alternatives to the practice of open field burning.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 5-1984, f. & ef. 3-7-84; AQ 17, f. & ef. 3-11-92

Definitions

340-26-005 As used in <u>these rules</u>, unless otherwise required by context<u>this Division</u>:

- (1) "Actively extinguish" means the direct application of water or other fire retardant to an open field fire.
- (2) "Approved alternative method(s)" means any method approved by the Department to be a satisfactory alternative field sanitation method to open field burning.
- (3) "Approved alternative facilities" means any land, structure, building, installation, excavation, machinery, equipment, or device approved by the Department for use in conjunction with an approved alternative method.
- (4) "Commission" means the Environmental Quality Commission.
- (5) "Cumulative hours of smoke intrusion in the Eugene-Springfield area" means the average of the totals of cumulative hours of smoke intrusion recorded for the Eugene site and the Springfield site. Provided the Department determines that field burning was a significant contributor to the smoke intrusion:
 - (a) The Department shall record one hour of intrusion for each hour the nephelometer hourly reading exceed a background level by 1.8 X 10⁴ b-scat units or more but less than the applicable value in subsection (b) or (c) of this section;
 - (b) Between June 16 and September 14 of each year, two hours of smoke intrusion shall be recorded for each hour the nephelometer hourly reading exceeds a background level of 5.0 X 10⁴ b-scat units;
 - (c) Between September 15 and June 15 of each year two hours of intrusion shall be recorded for each hour the nephelometer hourly reading exceeds a background level by 4.0 X 10⁴ b-scat units.

The background level shall be the average of the three hourly readings immediately prior to the intrusion. "Department" means the Department of Environmental Quality.

"Director" means the Director of the Department or delegated employee representative pursuant to ORS 468.045(3).

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(6) (7)

(8) "District allocation" means the total amount of acreage sub-allocated annually to the fire district, based on the district's pro rata share of the maximum annual acreage limitation, representing the maximum amount for which burning permits may be issued within the district, subject to daily authorization. District allocation is defined by the following identity:

District Allocation =

<u>Maximum annual acreage limit</u> Total acreage registered in the Valley

x Total acreage registered in the District

- (9) "Drying day" means a 24-hour period during which the relative humidity reached a minimum less than 50% and no rainfall was recorded at the nearest reliable measuring site.
- (10) "Effective mixing height" means either the actual height of plume rise as determined by aircraft measurement or the calculated or estimated mixing height as determined by the Department, whichever is greater.
- (11) "Field-by-field burning" means burning on a limited or restricted basis in which the amount, rate, and area authorized for burning is closely controlled and monitored. Included under this definition are "training fires" and experimental open field burning.
- (12) "Field reference code" means a unique four-part code which identifies a particular registered field for mapping purposes. The first part of the code shall indicate the grower registration (form) number, the second part the line number of the field as listed on the registration form, the third part the crop type, and the fourth part the size (acreage) of the field (e.g., a 35 acre perennial (bluegrass) field registered on line 2 of registration form number 1953 would be 1953-2-P-BL-35).
- (13) "Fire district" or "district" means a fire permit issuing agency.
- (14) "Fire permit" means a permit issued by a local fire permit issuing agency pursuant to ORS 477.515, 477.530, 476.380, or 478.960.
- (15) "Fires-out time" means the time announced by the Department when all flames and major smoke sources associated with open field burning should be out and prohibition conditions are scheduled to be imposed.

- (16) "Fire safety buffer zone" shall have the same meaning as defined in the State Fire marshal rules.
- (17) "Fluffing" means an approved mechanical method of stirring or tedding crop residues for enhanced aeration and drying of the full fuel load, thereby improving the field's combustion characteristics.
- (18) "Grower allocation" means the amount of acreage sub-allocated annually to the grower registrant, based on the grower registrant's pro rata share of the maximum annual acreage limitation, representing the maximum amount for which burning permits may be issued, subject to daily authorization. Grower allocation is defined by the following identity:

Grower Allocation =

<u>Maximum annual acreage limit</u> Total acreage registered in the Valley

x Total acreage registered by grower registrant

- (19) "Grower registrant" means any person who registers acreage with the Department for purposes of open field burning, propane flaming or stack or pile burning.
- (20) "Marginal conditions" means atmospheric conditions such that smoke and particulate matter escape into the upper atmosphere with some difficulty but not such that limited additional smoke and particulate matter would constitute a danger to the public health and safety.
- (21) "Marginal day" means a day on which marginal conditions exist.
- (22) "Nephelometer" means an instrument for measuring ambient smoke concentrations.
- (23) "Northerly winds" means winds coming from directions from 290° to 90° in the north part of the compass, averaged through the effective mixing height.
- (24) "Open field burning" means burning of any perennial or annual grass seed or cereal grain crop, or associated residue, in such manner that combustion air and combustion products are not effectively controlled.
- (25) "Open burning" means the burning of agricultural, construction, demolition, domestic, or commercial waste or any other burning which occurs in such a manner that combustion air is not effectively controlled and combustion products are not effectively vented through a stack or chimney pursuant to OAR 340-23-030.

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- (26) "Open field burning permit" means a permit issued by the Department pursuant to ORS 468A.575.
- (27) "Permit issuing agency" or "Permit agent" means the county court or board of county commissioners, or fire chief or a rural fire protection district or other person authorized to issue fire permits pursuant to ORS 477.515, 477.530, 476.380, or 478.960.
- (28) "Preparatory burning" means controlled burning of portions of selected problem fields for the specific purpose of reducing the fire hazard potential or other conditions which would otherwise inhibit rapid ignition burning when the field is subsequently open burned.
- (29) "Priority acreage" means acreage located within a priority area.
- (30) "Priority areas" means the following areas of the Willamette Valley:
 - (a) Areas in or within three miles of the city limits of incorporated cities having populations of 10,000 or greater;
 - (b) Areas within one mile of airports servicing regularly scheduled airline flights;
 - (c) Areas in Lane County south of the line formed by U.S. Highway 126 and Oregon Highway 126;
 - (d) Areas in or within three miles of the city limits of the City of Lebanon;
 - (e) Areas on the west and east side of and within 1/4 mile of these highways: 99, 99E, and 99W. Areas on the south and north side of and within 1/4 mile of U.S. Highway 20 between Albany and Lebanon, Oregon Highway 34 between Lebanon and Corvallis, Oregon Highway 228 from its junction south of Brownsville to its rail crossing at the community of Tulsa.
- (31) "Prohibition conditions" means conditions under which open field burning is not allowed except for individual burns specifically authorized by the Department pursuant to OAR 340-26-015(2).
- (32) "Propane flaming" means an approved alternative method of burning which employs a mobile flamer device which meets the following design specifications and utilizes and auxiliary fuel such that combustion is nearly complete and emissions significantly reduced:
 - (a) Flamer nozzles shall not be more than 15 inches apart;
 - (b) A heat deflecting hood is required and shall extend a minimum of 3 feet beyond the last row of nozzles.
- (33) "Propane flaming permit" means a permit issued by the Department pursuant to ORS 468A.575 and consisting of a

validation number and specifying the conditions and acreage specifically registered and allocated for propane flaming.

- (34) "Quota" means an amount of acreage established by the Department for each fire district for use in authorizing daily burning limits in a manner to provide, as reasonably as practicable, an equitable opportunity for burning in each area.
- (35) "Rapid ignition techniques" means a method of burning in which all sides of the field are ignited as rapidly as practicable in order to maximize plume rise. Little or no preparatory backfire burning shall be done.
- (36) "Released allocation" means that part of a growers allocation, by registration form, that is unused and voluntarily released to the Department for first come-first serve dispersal to other grower registrants.
- (37) "Residue" means straw, stubble and associated crop material generated in the production of grass seed and cereal grain crops.
- (38) "Responsible person" means each person who is in ownership, control, or custody of the real property on which open burning occurs, including any tenant thereof, or who is in ownership, control or custody of the material which is burned, or the grower registrant. Each person who causes or allows open field burning, propane flaming, or stack or pile burning to be maintained shall also be considered a responsible person.
- (39) "Small-seeded seed crops requiring flame sanitation" means small-seeded grass, legume, and vegetable crops, or other types approved by the Department, which are planted in early autumn, are grown specifically for seed production, and which require flame sanitation for proper cultivation. For purposes of { these rules} this Division, clover and sugar beets are specifically included. Cereal grains, hairy vetch, or field peas are specifically not included.
- (40) "Smoke management" means a system for the daily or hourly control of open field burning, propane flaming, or stack or pile burning through authorization of the times, locations, amounts and other restrictions on burning, so as to provide for suitable atmospheric dispersion of smoke particulate and to minimize impact on the public.
- (41) "Southerly winds" means winds coming from directions from 90° to 290° in the south part of the compass, averaged through the effective mixing height.
- (42) "Stack burning" means the open burning of piled or stacked residue from perennial or annual grass seed or cereal grain crops.

- (43) "Stack burning permit" means a permit issued by the Department pursuant to ORS 468A.575 and consisting of a validation number and specifying the conditions and acreage specifically registered for stack or pile burning.
- (44) "Test fires" means individual field burns specifically authorized by the Department for the purpose of determining or monitoring atmospheric dispersion conditions.
- (45) "Training fires" means individual field burns set by or for a public agency for the official purpose of training personnel in fire-fighting techniques.
- (46) "Unusually high evaporative weather conditions" means a combination of meteorological conditions following periods of rain which result in sufficiently high rates of evaporation, as determined by the Department, where fuel (residue) moisture content would be expected to approach about 12 percent or less.
- (47) "Validation number" means a unique five-part number issued by a permit issuing agency which validates a specific open field burning, propane flaming, or stack or pile burning permit for a specific acreage in a specific location on a specific day. The first part of the validation number shall indicate the grower registration (form) number, the second part the line number of the field as listed on the registration form, the third part the number of the month and the day of issuance, the fourth part the hour burning authorization was given based on a 24-hour clock, and the fifth part shall indicate the size of acreage to be burned (e.g., a validation number issued August 26 at 2:30 p.m. for a 70-acre burn for a field registered on line 2 of registration form number 1953 would be 1953 - 2 - 0826 - 1430 - 070).
- (48) "Ventilation Index (VI)" means a calculated value used as a criterion of atmospheric ventilation capabilities. The Ventilation Index as used in[these rules] this Division is defined by the following identity:

VI = <u>(Effective mixing height (feet))</u> 1000

x (Average wind speed through the effective mixing height (knots))

(49) "Willamette Valley" means the areas of Benton, Clackamas, Lane, Linn, Marion, Multnomah, Polk, Washington, and Yamhill Counties lying between the crest of the Coast Range and the crest of the Cascade Mountains, and includes the following:

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- (a) "South Valley", the areas of jurisdiction of all fire permit issuing agents or agencies in the Willamette Valley portions of the counties of Benton, Lane, or Linn;
- (b) "North Valley", the areas of jurisdiction of all other fire permit issuing agents or agencies in the Willamette Valley.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 29, f. 6-12-71, ef. 7-12-71; DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. & ef. 6-4-76; DEQ 138, f. 6-30-77; DEQ 140(Temp), f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 22-1978, f. & ef. 12-28-78; DEQ 24-1979(Temp), f. & ef. 7-5-79; DEQ 28-1979, f. & ef. 9-13-79; DEQ 30-1979, f. & ef. 9-27-79; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84; DEQ 11-1987, f. & ef. 6-15-87; DEQ 20-1988(Temp), f. 8-12-88, cert. ef. 8-12-88 thru 2-2-89; DEQ 8-1989, f. & cert. ef. 6-7-89; AQ 17, f. & ef. 3-11-92

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

General Requirements

340-26-010

(1) No person shall cause or allow open field burning, propane flaming, or stack or pile burning on any acreage unless said acreage has first been registered and mapped pursuant to OAR 340-26-012(1), the registration fee has been paid, and the registration (permit application) has been approved by the Department.

- (2) No person shall cause or allow open field burning, propane flaming, or stack or pile burning without first obtaining and being able to readily demonstrate a valid burning permit and fire permit from the appropriate permit issuing agent pursuant to OAR 340-26-012(2). On the specific day of and prior to the open field burning, propane flaming, or pile or stack burning of any grass seed or cereal grain crop or associated residue the grower registrant shall obtain, in person or by telephone, a valid burning permit and fire permit from the appropriate permit issuing agent pursuant to OAR 340-26-012.
- (3) No person shall open field burn cereal grain acreage unless that person first issues to the Department a signed statement, and then acts to insure, that said acreage will be planted in the following growing season to a small-seeded seed crop requiring flame sanitation for proper cultivation, as defined in OAR 340-26-005(34).
- (4) No person shall cause or allow open field burning, propane flaming, or stack or pile burning which is contrary to the Department's announced burning schedule specifying the times, locations and amounts of burning permitted, or to any other provision announced or set forth by the Department or[these rules] this Division.
- (5) Each responsible person open field burning or propane flaming shall have an operating radio receiver and shall directly monitor the Department's burn schedule announcements at all times while open field burning or propane flaming.
- (6) Each responsible person open field burning or propane flaming shall actively extinguish all flames and major smoke sources when prohibition conditions are imposed by the Department or when instructed to do so by an agent or employee of the Department.
- (7) No open field burning shall be conducted within 1/4 mile of either side of any Interstate freeway within the Willamette Valley or within 1/8 mile of either side of the designated roadways listed in OAR 837-110-080(2)(c). In addition, no open field burning shall be conducted in any of the remaining area within a fire safety buffer zone without prior authorization from the Department.
- (8) Each responsible person open field burning, propane flaming, or stack or pile burning within a priority area or fire safety buffer zone around a designated city, airport or highway shall refrain from burning and promptly extinguish any burning if it is likely that the resulting smoke would noticeably affect the designated city, airport or highway.

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- (9) Ignition devices shall meet the requirements of the State Fire Marshal in OAR 837-110-040 and 050:
 - (a) Ensuring that field residues are evenly distributed and in generally good burning condition;
 - (b) Utilizing ignition devices, fire control equipment and water supplies which meet the requirements of the State Fire Marshal, as specified in OAR 837-110-020 through 837-110-040;
 - (c) Employing rapid ignition techniques on all acreage where there are no imminent fire hazards or public safety concerns.
- (10) Each responsible person open field burning shall attend the burn until effectively extinguished.
- (11) Open field burning, propane flaming, or stack or pile burning in compliance with the rules of this Division does not exempt any person from any civil or criminal liability for consequences or damages resulting from such burning, nor does it exempt any person from complying with any other applicable law, ordinance, regulation, rule, permit, order or decree of the Commission or any other government entity having jurisdiction.
- (12) Any revisions to the maximum acreage to be burned, allocation or permit issuing procedures, or any other substantive changes to[these rules] this Division affecting open field burning, propane flaming, or stack or pile burning for any year shall be made prior to June 1 of that year. In making[rule] such changes, the Commission shall consult with Oregon State University.
- (13) Open field burning shall be regulated in a manner consistent with the requirements of the Oregon Visibility Protection Plan for Class I areas (sec. 5.2 of the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047).

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 29, f. 6-12-71, ef. 7-12-71; DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. 6-4-76; DEQ 138, f. 6-30-77; DEQ 140(Temp), f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 22-1978, f. & ef. 12-28-78; DEQ 30-1979, f. & ef. 9-27-79; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84; DEQ 11-1987, f. & ef. 6-15-87; DEQ 20-1988(Temp), f. 8-12-88, cert. ef. 8-12-88 thru 2-2-88; DEQ 8-1989, f. & cert. ef. 6-7-89; AQ 17, f. & ef. 3-11-92

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Certified Alternative to Open Field Burning

340-26-011 [DEQ 105, f. & ef. 12-26-75; DEQ 114, f. 6-4-76; DEQ 138, f. 6-30-77; DEQ 140(Temp), f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; Repealed by DEQ 5-1984, f. & ef. 3-7-84]

Registration, Permits, Fees, Records

340-26-012 In administering a field burning smoke management program, the Department may contract with counties or fire districts or other responsible individual to administer registration of acreage, issuance of permits, collection of fees and keeping of records for open field burning, propane flaming, or stack or pile burning within their permit jurisdictions. The Department shall pay said authority for these services in accordance with the payment schedule provided for in ORS 468A.615:

- (1) Registration of acreage.
 - (a) On or before April 1 of each year, all acreage to be open burned, propane flamed, or stack or pile burned under[these rules] this Division shall be registered with the Department or its authorized permit agent on registration forms provided by the Department. Said

acreage shall also be delineated on specially provided registration map materials and identified using a unique field reference code. Registration and mapping shall be completed according to the established procedures of the Department. A non-refundable registration fee of \$2 for open field burning and \$1 for propane flaming for each acre registered shall be paid at the time of registration. A complete registration (permit application) shall consist of a fully executed registration form, map and fee. Acreage registered by April 1 under any classification (open field burning, propane flaming, or stack or pile burning) may be issued a burn permit under another classification if:

- (A) allocation is available for the subsequent classification and;
- (B) the initial registration fee is made equal to or greater than the subsequent classification and allocation is transferred under the direction of the Department.
- (b) Registration of open field burning, propane flaming, or stack or pile burning acreage after April 1 of each year shall require the prior approval of the Department and an additional \$1 per acre late registration fee if the late registration is due to the fault of the late registrant or one under <u>[his]the registrant's</u> control.
- (c) Copies of all registration forms and fees shall be forwarded to the Department promptly by the permit agent. Registration map materials shall be made available to the Department at all times for inspection and reproduction.
- (d) The Department shall act on any registration application within 60 days of receipt of a completed application. The Department may deny or revoke any registration application which is incomplete, false or contrary to state law or[these rules] this <u>Division.</u>
- (e) It is the responsibility of the grower registrant to insure that the information presented on the registration form and map is complete and accurate.

- (2) Permits.
 - (a) Permits for open field burning, propane flaming, or stack or pile burning shall be issued by the Department, or its authorized permit agent, to the grower registrant in accordance with the established procedures of the Department, and the times, locations, amounts and other restrictions set forth by the Department or<u>[these rules] this Division</u>.
 - (b) A fire permit from the local fire permit issuing agency is also required for all open burning pursuant to ORS 477.515, 477.530, 476.380, 478.960.
 - (c) A valid open field burning permit shall consist of:
 - (A) An open field burning permit issued by the Department which specifies the permit conditions in effect at all times while burning and which identifies the acreage specifically registered and annually allocated for burning;
 - (B) A validation number issued by the local permit agent on the day of the burn identifying the specific acreage allowed for burning and the date and time the permit was issued; and
 - (C) Payment of the required \$8.00 per acre burn fee.
 - (d) A valid propane flaming permit shall consist of:
 - (A) A propane flaming permit issued by the Department which specifies the permit conditions in effect at all times while flaming and which identifies the acreage specifically registered and annually allocated for propane flaming;
 - (B) A validation number issued by the local permit agent identifying the specific acreage allowed for propane flaming and the date and time the permit was issued; and
 - (C) Payment of the required \$2 per acre propane flaming fee.
 - (e) A valid stack or pile burning permit shall consist of:
 - (A) A stack or pile burning permit issued by the Department which specifies the permit conditions in effect at all times while burning and which identifies the acreage specifically registered for burning;
 - (B) A validation number issued by the local permit agent identifying the specific acreage allowed for burning and the date and time the permit was issued; and

(C) Payment of the required [\$2 per acre] burn fee: (i) \$2 per acre from January 1, 1992, to December 31, 1997; (fi]ii) \$4 per acre burn fee in 1998; (fii]ii) \$6 per acre burn fee in 1999; (fii]iv) \$8 per acre burn fee in 2000;

> and ([iv]<u>v</u>) \$10 per acre burn fee in 2001 and thereafter.

- (f) Burning permits shall at all times be limited by and subject to the burn schedule and other requirements or conditions announced or set forth by the Department.
- (g) No person shall issue burning permits for open field burning, propane flaming, or stack or pile burning of:
 - (A) More acreage than the amount sub-allocated annually to the District by the Department pursuant to OAR 340-26-013(2);
 - (B) Priority or fire safety buffer zone acreage located on the upwind side of any city, airport, Interstate freeway or highway within the same priority area or buffer zone.
- (h) It is the responsibility of each local permit issuing agency to establish and implement a system for distributing open field burning, propane flaming, or stack or pile burning permits to individual grower registrants when burning is authorized, provided that such system is fair, orderly and consistent with state law, [-these rules] this Division and any other provisions set forth by the Department.
- (3) Fees.
 - (a) Permit agents shall collect, properly document and promptly forward all required registration and burn fees to the Department.
 - (b) All fees shall be deposited in the State Treasury to the credit of the Department of Agriculture Service Fund and shall be appropriated pursuant to ORS 468A.550 to 468A.620.
- (4) Records.
 - (a) Permit agents shall at all times keep proper and accurate records of all transactions pertaining to registrations, permits, fees, allocations, and other matters specified by the Department. Such records shall be kept by the permit agent for a period of at least five years and made available for inspection by the appropriate authorities.

(b) Permit agents shall submit to the Department on specially provided forms weekly reports of all acreage burned in their permit jurisdictions. These reports shall cover the weekly period of Monday through Sunday, and shall be mailed and post-marked no later than the first working day of the following week.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. 6-4-76; DEQ 138, f. & ef. 6-30-77; DEQ 140(Temp), f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84; DEQ 20-1988(Temp), f. 8-12-88, cert. ef. 8-12-88 thru 2-2-89; DEQ 8-1989, f. & cert. ef. 6-7-89; AQ 17, f. & ef. 3-11-92

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Acreage Limitations, Allocations

340-26-013

- (1) Limitation of Acreage.
 - Except for acreage and residue open field burned (a) pursuant to OAR 340-26-035, 340-26-040, 340-26-045, and 340-26-055 the maximum acreage to be open field burned annually in the Willamette Valley under these rules] this Division shall not exceed: (A) 140,000 acres for 1992 and 1993; 120,000 acres for 1994 and 1995; (<u>{</u>A}<u>B</u>) 100,000 acres for 1996 and 1997; and ([B]C) 40,000 acres for 1998 and thereafter. ([C]D) (b) Notwithstanding the annual limitations, up to 25,000 acres of steep terrain and species identified by the Director of Agriculture may be open burned annually and shall be considered outside the limitation.
 - (c) Other limitations on acreage allowed to be open field burned are specified in OAR 340-26-015(7), 340-26-033(2) and 340-26-035(1).

- (d) The maximum acreage to be propane flamed annually in the Willamette Valley under<u>[these rules] this</u> <u>Division</u> shall not exceed 75,000 acres.
- (e) Other limitations on acreage allowed to be propane flamed are specified in OAR 340-26-045.
- (2) Allocation of Acreage.
 - (a) In the event that total registration as of April 1 is less than or equal to the maximum acreage allowed to be open field burned or propane flamed annually, pursuant to subsection (1)(a) and (d) of this rule, the Department shall sub-allocate to each grower registrant and each district (subject to daily burn authorization) 100 percent of their respective registered acreage.
 - (b) In the event that total registration as of April 1 exceeds the maximum acreage allowed to be open burned annually, pursuant to subsection (1) (a) of this rule, the Department may sub-allocate to growers on a pro rata share basis not more than 100 percent of the maximum acreage limit, referred to as "grower allocation". In addition, the Department shall sub-allocate to each respective fire district, its pro rata share of the maximum acreage limit based on acreage registered within the district, referred to as "district allocation".
 - (c) To insure optimum permit utilization, the Department may adjust fire district allocations.
 - (d) Transfer of allocations for farm management purposes may be made within and between fire districts and between grower registrants on a one-in/one-out basis under the supervision of the Department. The Department may assist grower registrants by administering a reserve of released allocation for first come-first served utilization.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. & ef. 6-4-76; DEQ 138, f. & ef. 6-30-77; DEQ 140(Temp), f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 22-1978, f. & ef. 12-28-78; DEQ 13-1979, f. & ef. 6-8-79; DEQ 30-1979, f. & ef. 9-27-79; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84; DEQ 11-1987, f. & ef. 6-15-87; AQ 17, f. & ef. 3-11-92

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Daily Burning Authorization Criteria

340-26-015 As part of the smoke management program provided for in ORS 468A.590 the Department shall set forth the types and extent of open field burning, propane flaming, and stack and pile burning to be allowed each day according to the provisions established in this section and{ these rules} this Division:

- (1) During the active burning season and on an as needed basis, the Department shall announce the field burning schedule over the field burning radio network operated specifically for this purpose. The schedule shall specify the times, locations, amounts and other restrictions in effect for open field burning, propane flaming, and stack and pile burning. The Department shall notify the State Fire Marshal of the burning schedule for dissemination to appropriate Willamette Valley agencies.
- (2) Prohibition conditions.
 - (a) Prohibition conditions shall be in effect at all times unless specifically determined and announced otherwise by the Department.
 - (b) Under prohibition conditions, no permits shall be issued and no open field burning shall be conducted in any area except for individual burns specifically authorized by the Department on a limited extent basis. Such limited burning may include field-by-field burning, preparatory burning, or burning of test fires, except that:
 - (A) No open field burning shall be allowed:
 - (i) In any area subject to a ventilation index of less than 10.0, except for experimental burning specifically authorized by the Department pursuant to OAR 340-26-035;

- (ii) In any area upwind, or in the immediate vicinity, of any area in which, based upon real-time monitoring, a violation of federal or state air quality standards is projected to occur.
- (B) Only test-fire burning may be allowed: (i) In any area subject to a ventilation index of between 10.0 and 15.0, inclusive, except for experimental burning specifically authorized by the
 - Department pursuant to OAR 340-26-035; When relative humidity at the nearest (ii) reliable measuring station exceeds 50 percent under forecast northerly winds or 65 percent under forecast southerly winds.
- Marginal conditions.
 - The Department shall announce that marginal (a) conditions are in effect and open field burning is allowed when, in its best judgment and within the established limits of[these rules] this Division, the prevailing atmospheric dispersion and burning conditions are suitable for satisfactory smoke dispersal with minimal impact on the public, provided that the minimum conditions set forth in paragraphs (2) (b) (A) and (B) of this rule are satisfied.
 - Under marginal conditions, permits may be issued and (b) open field burning may be conducted in accordance with the times, locations, amounts, and other restrictions set forth by the Department and [these rules] this Division.

(4) Hours of burning.

- Burning hours shall be limited to those specifically (a) authorized by the Department each day and may be changed at any time when necessary to attain and maintain air quality.
- (b) Burning hours may be reduced by the fire chief or his deputy, and burning may be prohibited by the State Fire Marshal, when necessary to prevent danger to life or property from fire, pursuant to ORS 478.960.
- (5) Locations of burning:
 - (a) Locations of burning shall at all times be limited to those areas specifically authorized by the Department, except that:

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(3)

- (A) No priority or fire safety buffer zone acreage shall be burned upwind of any city, airport, Interstate freeway or highway within the same priority area or buffer zone;
- (B) No south Valley priority acreage shall be burned upwind of the Eugene-Springfield non-attainment area.
- (6) Amounts of burning.
 - (a) In order to provide for an efficient and equitable distribution of burning, daily authorizations of acreages shall be issued by the Department in terms of single or multiple fire district quotas. The Department shall establish quotas for each fire district and may adjust the quotas of any district when conditions in its judgment warrant such action.
 - (b) Unless otherwise specifically announced by the Department, a one quota limit shall be considered in effect for each district authorized for burning.
 - (c) The Department may issue more restrictive limitations on the amount, density or frequency of burning in any area or on the basis of crop type, when conditions in its judgment warrant such action.
- (7) Limitations on burning based on air quality.
 - (a) The Department shall establish the minimum allowable effective mixing height required for burning based upon cumulative hours of smoke intrusion in the Eugene-Springfield area as follows:
 - (A) Except as provided in paragraph (B) of this subsection, burning shall not be permitted whenever the effective mixing height is less than the minimum allowable height specified in Table 1, and by reference made a part of[these rules] this Division;
 - (B) Notwithstanding the effective mixing height restrictions of paragraph (A) of this subsection, the Department may authorize burning of up to 1000 acres total per day for the Willamette Valley, consistent with smoke management considerations and [-these-rules] this Division.
- (8) Limitations on burning based on rainfall.
 - (a) Open field burning and propane flaming shall be prohibited in any area for one drying day (up to a maximum of four consecutive drying days) for each 0.10 inch increment of rainfall received per day at the nearest reliable measuring station.

- (b) The Department may waive the restrictions of subsection (a) of this section when dry fields are available as a result of special field preparation or condition, irregular rainfall patterns, or unusually high evaporative weather condition.
- (9) Other discretionary provisions and restrictions.
 - (a) The Department may require special field preparations before burning, such as, but not limited to, mechanical fluffing of residues, when conditions in its judgment warrant such action.
 - (b) The Department may designate specified periods following permit issuance within which time active field ignition must be initiated and/or all flames must be actively extinguished before said permit is automatically rendered invalid.
 - (c) The Department may designate additional areas as priority areas when conditions in its judgment warrant such action.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 29, f. 6-12-71, ef. 7-12-71; DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. & ef. 6-4-76; DEQ 138, f. 6-30-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 22-1978, f. & ef. 12-28-78; DEQ 24-1979(Temp), f. & ef. 7-5-79; DEQ 28-1979, f. & ef. 9-13-79; DEQ 30-1979, f. & ef. 9-27-79; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84; DEQ 20-1988(Temp), f. 8-12-88, cert. ef. 8-12-88 thru 2-2-89; DEQ 8-1989, f. & cert. ef. 6-7-89; AQ 17, f. & ef. 3-11-92

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Winter Burning Season Regulations

340-26-020 [DEQ 29, f. 6-12-71, ef. 7-12-71; DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. 6-4-76; DEQ 138, f. 6-30-77; DEQ 6-1978, f. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; Repealed by DEQ 5-1984, f. & ef. 3-7-84]

Civil Penalties

Tax Credits for Approved Alternative Methods, and Approved Alternative Facilities

340-26-030 [DEQ 114, f. & ef. 6-4-76; DEQ 138, f. 6-30-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84; Repealed by DEQ 12-1984, f. & ef. 7-13-84]

Burning by Public Agencies (Training Fires)

340-26-031 Open field burning on grass seed or cereal grain acreage by or for any public agency for official purposes, including the training of fire-fighting personnel, may be permitted by the Department on a prescheduled basis consistent with smoke management considerations and subject to the following conditions:

- (1) Such burning must be deemed necessary by the official local authority having jurisdiction and must be conducted in a manner consistent with its purpose.
- (2) Such burning must be limited to the minimum number of acres and occasions reasonably needed.
- (3) The responsible person shall insure that such burning complies with the provisions of OAR 340-26-010 through 340-26-013.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 5-1984, f. & ef. 3-7-84; AQ 17, f. & ef. 3-11-92

Preparatory Burning

340-26-033 The Department may allow preparatory burning of portions of selected problem fields, consistent with smoke management considerations and subject to the following conditions.

- (1) Such burning must, in the opinion of the Department, be necessary to reduce or eliminate a potential fire hazard or safety problem in order to expedite the subsequent burning of the field.
- (2) Such burning shall be limited to the minimum number of acres necessary, in no case exceeding 5 acres for each burn or a maximum of 100 acres each day.
- (3) Such burning must employ backfiring burning techniques.
- (4) Such burning is exempt from the provisions of OAR 340-26-015 but must comply with the provisions of OAR 340-26-010 through 340-26-013.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.1

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 11-1987, f. & ef. 6-15-87

Experimental Burning

340-26-035 The Department may allow open field burning for demonstration or experimental purposes pursuant to the provisions of ORS 468A.620, consistent with smoke management considerations and subject to the following conditions:

- (1) Acreage experimentally open burned, propane flamed, or stack or pile burned shall not exceed 1,000 acres annually.
- (2) Acreage experimentally open burned shall not apply to the district allocation or to the maximum annual acreage limit specified in OAR 340-26-013(1)(a) or (d).
- (3) Such burning is exempt from the provisions of OAR 340-26-015 but must comply with the provisions of OAR 340-26-010 and 340-26-012, except that the Department may elect to waive all or part of the per acre open field burning or propane flaming fee.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 5-1984, f. & ef. 3-7-84; DEQ 11-1987, f. & ef. 6-15-87; AQ 17, f. & ef. 3-11-92

Emergency Burning, Cessation

340-26-040 Pursuant to ORS 468A.610 and upon finding of extreme danger to public health or safety, the Commission may order temporary emergency cessation of all open field burning in any area of the Willamette Valley.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 5-1984, f. & ef. 3-7-84; AQ 17, f. & ef. 3-11-92

Propane Flaming

340-26-045

- (1) The use of propane flamers, mobile field sanitizing devices, and other field sanitation methods specifically approved by the Department are subject to the following conditions:
 - (a) The field must first be prepared as follows:
 - (A) Either the field must have previously been open burned and the appropriate fees paid; or
 - (B) The field stubble must be flail-chopped, mowed, or otherwise cut close to the ground and the loose straw removed to the extent practicable and the remaining stubble will not sustain an open fire.
 - (b) Propane flaming operations shall comply with the following criteria:
 - (A) Unless otherwise specifically restricted by the Department, and except for the use of propane flamers in preparing fire breaks, propane flaming may be conducted only between the hours of 9 a.m. and sunset (9 a.m. to one-half hour before sunset on or after September 1);
 - (B) Every effort shall be made to operate propane flamers in overlapping strips, crosswise to the prevailing wind, beginning along the downwind edge of the field;

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- (C) The remaining field residue must not sustain an open fire;
- (D) A fire permit must first be obtained from the local fire permit issuing agency;
- (E) Every effort shall be made to conduct propane flaming in a manner which minimizes smoke emissions;
- (F) No person shall cause or allow to maintain any propane flaming which results in visibility impairment on any Interstate highways or roadways specified in OAR 837-110-080(1) and (2). Should visibility impairment occur, all flame and smoke sources shall be immediately and actively extinguished;
- (G) The acreage must be registered and permits obtained pursuant to OAR 340-26-012.
- (c) In addition to the conditions specified in paragraphs
 (a) and (b) of this section, propane flaming
 operations within any fire safety buffer zone must
 comply with the following criteria:
 - (A) Propaning shall be conducted at a vehicle speed appropriate for complete combustion and minimum smoke emissions but should not exceed 5 miles per hour;
 - (B) No propaning shall be allowed when either the relative humidity at the nearest reliable measuring station exceeds 65 percent or the surface winds exceed 15 miles per hour;
 - (C) The presence of any regrowth in the field between 6 and 12 inches in height shall be mowed or cut close to the ground, and removed providing mechanical removal of the resultant field residue is practicable. Any regrowth exceeding 12 inches shall be mowed or cut close to the ground and removed.
- (2) No person shall cause or allow to be initiated or maintained any propane flaming on any day or at any time if the Department has determined and notified the State Fire Marshal that propane flaming is prohibited because of adverse meteorological or air quality conditions.
- (3) The Department may issue restrictive limitations on the amount, density or frequency of propane flaming in any area when meteorological conditions are unsuitable for adequate smoke dispersion, or deterioration of ambient air quality occurs.

(4) All propane flaming operations shall be conducted in accordance with the State Fire Marshal's safety requirements, as specified in OAR 837-110-100 through 837-110-160.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 5-1984, f. & ef. 3-7-84; DEQ 11-1987, f. & ef. 6-15-87; DEQ 20-1988(Temp), f. 8-12-88, cert. ef. 8-12-88 thru 2-2-89; DEQ 8-1989, f. & cert. ef. 6-7-89; AQ 17, f. & ef. 3-11-92

Stack Burning

340-26-055 The open burning of piled or stacked residue from perennial or annual grass seed or cereal grain crops used for seed production is allowed subject to the following conditions:

- (1) No person shall cause or allow to be initiated or maintained any stack or pile burning on any day or at any time if the Department has notified the State Fire Marshal that such burning is prohibited because of meteorological or air quality conditions;
- (2) A fire permit must be obtained from the local permit issuing agency;
- (3) All residue to be burned must be dry to the extent practicable and free of all other combustible and non-combustible material. Covering the stacks is advised when necessary and practicable to protect the material from moisture;
- (4) It shall be the duty of each responsible person to make every reasonable effort to extinguish any stack burning which is in violation of any rule of the Commission;
- (5) No stack or pile burning shall be conducted within any State Fire Marshal buffer zone "non-combustible ground surface" area (e.g., within 1/4 mile of Interstate I-5, or 1/8 mile of any designated roadway), as specified in OAR 837-110-080;
- (6) The acreage must be registered and permits obtained pursuant to OAR 340-26-012.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 11-1987, f. & ef. 6-15-88; DEQ 8-1989, f. & cert. ef. 6-7-89; AQ 17, f. & ef. 3-11-92

TABLE 1

(340-26-015)

MINIMUM ALLOWABLE EFFECTIVE MIXING HEIGHT REQUIRED FOR BURNING BASED UPON THE CUMULATIVE HOURS OF SMOKE INTRUSION IN THE EUGENE-SPRINGFIELD AREA

Cumulative Hours of Smoke	
Intrusion in the	Minimum Allowable Effective
Eugene-Springfield Area	<u>Mixing Height (feet)</u>

0 - 14 15 - 19 20 - 24 25 and greater No minimum 4,000 4,500 5,500

DIVISION 27

AIR POLLUTION EMERGENCIES

Introduction

340-27-005 OAR 340-27-010, 340-27-015 and 340-27-025 are effective within priority I and II air quality control regions (AQCR) designated in 40 CFR Part 52 subpart MM, when the AQCR contains a nonattainment area listed in 40 CFR Part 81. All other rules in this Division are equally applicable to all areas of the state. Notwithstanding any other regulation or standard, [these emergency rules are] this Division is designed to prevent the excessive accumulation of air contaminants during periods of atmospheric stagnation or at any other time, which if allowed to continue to accumulate unchecked could result in concentrations of these contaminants reaching levels which could cause significant harm to the health of persons. [These rules] This Division establishes criteria for identifying and declaring air pollution episodes at levels below the level of significant harm and are adopted pursuant to the requirements of the Federal Clean Air Act as amended and 40 CFR Part 51. [16] 151. [Legislative authority for these rules is contained in Oregon Revised Statutes including ORS 468.020, 468.095, 468.115, 468.280, 468.285, 468.305 and 468.410.] Levels of significant harm for various pollutants listed in 40 CFR Part 51.1[6]51 are:

- (1) For sulfur dioxide (SO₂) 1.0 ppm, 24-hour average.
- (2) For particulate matter $(PM_{10}) 600$ micrograms per cubic meter, 24-hour average.
- (3) For carbon monoxide (CO):
 - (a) 50 ppm, 8-hour average.
 - (b) 75 ppm, 4-hour average.
 - (c) 125 ppm, 1-hour average.
- (4) For ozone $(O_3) 0.6$ ppm, $\frac{112}{2}$ -hour average.
- (5) For nitrogen dioxide (NO2):
 - (a) 2.0 ppm, 1-hour average.
 - (b) 0.5 ppm, 24-hour average.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publication:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality in Portland.]

OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISION 27 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 9-1-72; DEQ 18-1983, f. & ef. 10-24-83; DEQ 8-1988, f. & cert. ef. 5-19-88 (and corrected 5-31-88)

Episode Stage Criteria For Air Pollution Emergencies

340-27-010 Three stages of air pollution episode conditions and a pre-episode standby condition are established to inform the public of the general air pollution status and provide a management structure to require preplanned actions designed to prevent continued accumulation of air pollutants to the level of significant harm. The three episode stages are: Alert, Warning, and Emergency. The Department shall be responsible to enforce the provisions of[these rules] this Division which requires actions to reduce and control emissions during air pollution episode conditions.

An air pollution alert or air pollution warning shall be declared by the Director or appointed representative when the appropriate air pollution conditions are deemed to exist. When conditions exist which are appropriate to an air pollution emergency, the Department shall notify the Governor and declare an air pollution emergency pursuant to ORS 468.115. The statement declaring an air pollution Alert, Warning or Emergency shall define the area affected by the air pollution episode where corrective actions are required. Conditions justifying the proclamation of an air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the Department determines that the accumulation of air contaminants in any place is increasing or has increased to levels which could, if such increases are sustained or exceeded, lead to a threat to the health of the public. In making this determination, the Department will be guided by the following criteria for each pollutant and episode stage [as listed in this rule]:

(1) "Pre-episode Standby" condition, indicates that ambient levels of air pollutants are within standards or only moderately exceed standards. In this condition, there is no imminent danger of any ambient pollutant concentrations reaching levels of significant harm. The Department shall maintain at least a normal monitoring schedule but may conduct additional monitoring. An air stagnation advisory issued by the National Weather Service, an equivalent local forecast of air stagnation or observed ambient air levels in excess of ambient air standards may be used to indicate the need for increased sampling frequency. The pre-episode standby condition is the lowest possible air pollution episode condition and may not be terminated.

- "Air Pollution Alert" condition indicates that air (2)pollution levels are significantly above standards but there is no immediate danger of reaching the level of significant harm. Monitoring should be intensified and readiness to implement abatement actions should be reviewed. At the Air Pollution Alert level the public is to be kept informed of the air pollution conditions and of potential activities to be curtailed should it be necessary to declare a warning or higher condition. An Air Pollution Alert condition is a state of readiness. When the conditions in both subsection (a) and (b) of this section are met, an Air Pollution Alert will be declared and all appropriate actions described in Tables 1 and 4 shall be implemented.
 - Meteorological dispersion conditions are not expected (a) to improve during the next twenty-four (24) or more hours.
 - (b) Monitored pollutant levels at any monitoring site exceed any of the following:
 - (A)
 - Sulfur dioxide 0.3 ppm, 24 hour average. Particulate Matter (PM₁₀) 350 micrograms per (B) cubic meter $(ug/m^3) - 24$ hour average.
 - (C) Carbon monoxide - 15 ppm - 8 hour average.
 - Ozone 0.2 ppm 1 hour average. (D)
 - (E) Nitrogen dioxide:

(i) 0.6 ppm - 1 hour average; or

- (ii) 0.15 ppm - 24 hour average.
- (3)"Air Pollution Warning" condition indicates that pollution levels are very high and that abatement actions are necessary to prevent these levels from approaching the level of significant harm. At the Air Pollution Warning level substantial restrictions may be required limiting motor vehicle use and industrial and commercial activities. When the conditions in both subsections (a) and (b) of this section are met, an Air Pollution Warning will be declared by the Department and all appropriate actions described in Tables 2 and 4 shall be implemented:
 - Meteorological dispersion conditions are not expected (a) to improve during the next twenty-four (24) or more hours.
 - Monitored pollutant levels at any monitoring site (b) exceed any of the following:
 - Sulfur dioxide 0.6 ppm 24 hour average. (A)
 - Particulate Matter (PM₁₀) 420 ug/m³ 24 hour (B) average.
 - Carbon monoxide 30 ppm 8 hour average. (C)
 - Ozone 0.4 ppm 1 hour average. (D)

- (E) Nitrogen dioxide:
 - (i) 1.2 ppm 1 hour average; or
 - (ii) 0.3 ppm 24 hour average.
- (4) "Air Pollution Emergency" Condition indicates that air pollutants have reached an alarming level requiring the most stringent actions to prevent these levels from reaching the level of significant harm to the health of persons. At the Air Pollution Emergency level extreme measures may be necessary involving the closure of all manufacturing, business operations and vehicle traffic not directly related to emergency services. Pursuant to ORS 468.115, when the conditions in both subsections (a) and (b) of this section are met, an air pollution emergency will be declared by the Department and all appropriate actions described in Tables 3 and 4 shall be implemented:
 - (a) Meteorological dispersion conditions are not expected to improve during the next twenty-four (24) or more hours.
 - (b) Monitored pollutant levels at any monitoring site exceed any of the following:
 - (A) Sulfur dioxide 0.8 ppm 24 hour average.
 - (B) Particulate Matter (PM_{10}) 500 ug/m³ 24 hour average.
 - (C) Carbon monoxide 40 ppm 8 hour average.
 - (D) Ozone 0.5 ppm 1 hour average.
 - (E) Nitrogen dioxide:
 - (i) 1.6 ppm 1 hour average; or
 - (ii) 0.4 ppm 24 hour average.
- (5) "Termination": Any air pollution episode condition (Alert, Warning or Emergency) established by these criteria may be reduced to a lower condition when the elements required for establishing the higher conditions are no longer observed.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 9-1-72; DEQ 18-1983, f. & ef. 10-24-83; DEQ 8-1988, f. & cert. ef. 5-19-88 (and corrected 5-31-88)

Special Conditions

340-27-012

- (1) The Department shall issue an "Ozone Advisory" to the public when monitored ozone values at any site exceed the ambient air quality standard of 0.12 ppm but are less than 0.2 ppm for a 1 hour average. The ozone advisory shall clearly identify the area where the ozone values have exceeded the ambient air standard and shall state that significant health effects are not expected at these levels, however, sensitive individuals may be affected by some symptofnjms.
- (2) Where particulate is primarily soil from windblown dust or fallout from volcanic activity, episodes dealing with such conditions must be treated differently than particulate episodes caused by other controllable sources. In making a declaration of air pollution alert, warning, or emergency for such particulate, the Department shall be guided by the following criteria:
 - "Air Pollution Alert for Particulate from Volcanic (a) Fallout or Windblown Dust" means total suspended particulate values are significantly above standard but the source is volcanic eruption or dust storm. In this condition there is no significant danger to public health but there may be a public nuisance created from the dusty conditions. It may be advisable under these circumstances to voluntarily restrict traffic volume and/or speed limits on major thoroughfares and institute cleanup procedures. The Department will declare an air pollution alert for particulate from volcanic fallout or wind-blown dust when total suspended particulate values at any monitoring site exceed or are projected to exceed 800 ug/m^3 - 24 hour average and the suspended particulate is primarily from volcanic activity or dust storms, meteorological conditions not withstanding;
 - (b) "Air Pollution Warning for Particulate from Volcanic Fallout or Windblown Dust" means total suspended particulate values are very high but the source is volcanic eruption or dust storm. Prolonged exposure over several days at or above these levels may produce respiratory distress in sensitive individuals. Under these conditions staggered work hours in metropolitan areas, mandated traffic reduction, speed limits and cleanup procedures may be required. The Department will declare an air pollution warning for particulate from volcanic fallout or wind-blown dust when total suspended

particulate values at any monitoring site exceed or are expected to exceed 2000 $ug/m^3 - 24$ hour average and the suspended particulate is primarily from volcanic activity or dust storms, meteorological conditions not withstanding;

- "Air Pollution Emergency for Particulate from (C) Volcanic Fallout or Windblown Dust" means total suspended particulate values are extremely high but the source is volcanic eruption or dust storm. Prolonged exposure over several days at or above these levels may produce respiratory distress in a significant number of people. Under these conditions cleaning procedures must be accomplished before normal traffic can be permitted. An air pollution emergency for particulate from volcanic fallout or wind-blown dust will be declared by the Director, who shall keep the Governor advised of the situation, when total suspended particulate values at any monitoring site exceed or are expected to exceed 5000 $ug/m^3 - 24$ hour average and the suspended particulate is primarily from volcanic activity or dust storms, meteorological conditions notwithstanding.
- (3) Termination: Any air pollution condition for particulate established by these criteria may be reduced to a lower condition when the criteria for establishing the higher condition are no longer observed.
- (4) Action: Municipal and county governments or other governmental agency having jurisdiction in areas affected by an air pollution Alert, Warning or Emergency for particulate from volcanic fallout or windblown dust shall place into effect the actions pertaining to such episodes which are described in Table 4.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1983, f. & ef. 10-24-83; DEQ 8-1988, f. & cert. ef. 5-19-88 (and corrected 5-31-88)

Source Emission Reduction Plans

340-27-015

(1) Tables 1, 2, and 3 of [these air pollution emergency rules] this Division set forth specific emission reduction measures which shall be taken upon the declaration of an air pollution alert, air pollution warning, or air

pollution emergency. Any person responsible for a source of air contamination within a priority I AQCR shall, upon declaration of any air pollution episode condition affecting the locality of the air contamination source, take all appropriate actions specified in the applicable Table and shall take appropriate actions specified in an approved source emission reduction plan which has been submitted and is on file with the Department.

- Any person responsible for the operation of any point source of air pollution which is $\{\cdot\}$ located in a Priority I AQCR, located within an Air Quality Maintenance Area (AQMA) or located within a nonattainment area listed in 40 CFR Part 81, and Emits 100 tons or more of any air pollutant specified by subsection (a) or (b) of this section [;] shall file a Source Emission Reduction Plan (SERP) with the Department in accordance with the schedule described in section (4) of this rule. Persons responsible for other point sources of air pollution located in a Priority I AQCR may optionally file a SERP with the Department for approval. Such plans shall specify procedures to implement the actions required by Tables 1, 2, and 3 of [these rules] this Division and shall be consistent with good engineering practice and safe operating procedures. Source emission reduction plans specified by this section are mandatory only for those sources which:
 - (a) Emit 100 tons per year or more of any pollutant for which the nonattainment area, AQMA, or any portion of the AQMA is designated nonattainment; or
 - (b) Emit 100 tons per year or more of volatile organic compounds when the nonattainment area, AQMA or any portion of the AQMA is designated nonattainment for ozone.
- (3) Municipal and county governments or other governmental body having jurisdiction in nonattainment areas where ambient levels of carbon monoxide, ozone or nitrogen dioxide qualify for Priority I ACQR classification, shall cooperate with the Department in developing a traffic control plan to be implemented during air pollution episodes of motor vehicle related emissions. Such plans shall implement the actions required by Tables 1, 2 and 3 of[these rules] this <u>Division</u> and shall be consistent with good traffic management practice and public safety.
- (4) The Department shall periodically review the source emission reduction plans to assure that they meet the requirements of <u>these rules</u> this Division. If deficiencies are found, the Department shall notify the persons responsible for the source. Within 60 days of such

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(2)

notice the person responsible for the source shall prepare a corrected plan for approval by the Department. Source emission reduction plans shall not be effective until approved by the Department.

(5) During an air pollution alert, warning or emergency episode, source emission reduction plans required by this rule shall be available on the source premises for inspection by any person authorized to enforce the provisions of[these rules] this Division.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 9-1-72; DEQ 18-1983, f. & ef. 10-24-83

Preplanned Abatement Strategies

340-27-020 [DEQ 37, f. 2-15-72, ef. 9-1-72; Repealed by DEQ 18-1983, f. & ef. 10-24-83]

Regional Air Pollution Authorities 340-27-025

- (1) The Department of Environmental Quality and the regional air pollution authorities shall cooperate to the fullest extent possible to insure uniformity of enforcement and administrative action necessary to implement[these rules] this Division with the exception of sources of air
- this Division. With the exception of sources of air contamination where jurisdiction has been retained by the Department of Environmental Quality, all persons within the territorial jurisdiction of a regional air pollution authority shall submit the source emission reduction plans prescribed in [rule] OAR 340-27-015 to the regional air pollution authority. The regional air pollution authority shall submit copies of approved source emission reduction plans to the Department of Environmental Quality.
- (2) Declarations of air pollution alert, air pollution warning, and air pollution emergency shall be made by the appropriate regional authority. In the event such a declaration is not made by the regional authority, the Department of Environmental Quality shall issue the declaration and the regional authority shall take appropriate remedial actions as set forth in[these rules] this Division.

- (3) Additional responsibilities of the regional authorities shall include, but are not limited to:
 - (a) Securing acceptable source emission reduction plans;
 - (b) Measurement and reporting of air quality data to the Department of Environmental Quality;
 - (c) Informing the public, news media, and persons responsible for air contaminant sources of the various levels set forth in[these rules] this <u>Division</u> and required actions to be taken to maintain air quality and the public health;
 - (d) Surveillance and enforcement of source emission reduction plans.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 9-1-72; DEQ 18-1983, f. & ef. 10-24-83

Effective Date

340-27-030 [DEQ 37, f. 2-15-72, ef. 9-1-72; Repealed by DEQ 18-1983, f. & ef. 10-24-83]

Operations Manual

340-27-035 The Department shall maintain an operations manual to administer the provisions of[these air pollution <u>emergency rules] this Division</u>. This manual shall be available to the Department Emergency Action office at all times. At a minimum the Operations Manual shall contain the following elements:

(1) A copy of { these rules } this Division;

- (2) A chapter on communications which shall include:
 - (a) Telephone lists naming public officials, public health and safety agencies, local government agencies, emission sources, news media agencies and individuals who need to be informed about the episode status and information updates. These telephone lists shall be specific to episode conditions and will be used when declaring and cancelling episode conditions;
 - (b) Example and sample messages to be released to the news media for declaring or modifying an episode status.
- (3) A chapter on data gathering and evaluation which shall include:

- (a) A description of ambient air monitoring activities to be conducted at each episode stage including "Standby";
- (b) Assignment of responsibilities and duties for ascertaining ambient air levels of specified pollutants and notification when levels reach the predetermined episode levels;
- (c) Assignment of responsibilities and duties for monitoring meteorological developments from teletype reports and National Weather Service contacts. Part of this responsibility shall be to evaluate the meteorological conditions for their potential to affect ambient air pollutant levels.
- (4) A chapter defining responsibilities and duties for conducting appropriate source compliance inspections during episode stages requiring curtailment of pollutant emissions.
- (5) A chapter establishing the duties and responsibilities of the emergency action center personnel to assure coordinated operation during an air pollution episode established in accordance with [these rules] this Division.
- (6) An appendix containing individual source emission reduction plans required by <u>{ these rules} this Division</u> plus any approved voluntary plans.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1983, f. & ef. 10-24-83

Table 1

Air Pollution Episode ALERT Conditions Source Emission Reduction Plan

Emission Control Actions to be Taken as Appropriate in Alert Episode Area

Part A - Pollution Episode Conditions for Particulate Matter (PM₁₀) (Except Particulate from Volcanic Activity or Windblown Dust.) a. There shall be no open burning of any material in the designated area. b. Where appropriate and if air quality maintenance strategies have not already prohibited the use of woodstoves and fireplaces, the public is requested to refrain from using coal or wood in uncertified woodstoves and fireplaces for domestic space heating where other heating methods are available. c. Sources having Emission Reduction Plans, review plans and assure readiness to put them into effect if conditions worsen. Part B - Pollution Episode Conditions for Carbon Monoxide, Ozone a. All persons operating motor vehicles voluntarily reduce or eliminate unnecessary operations within the designated alert area. b. Where appropriate, the public is requested to refrain from using coal or wood in uncertified woodstoves and fireplaces for domestic space heating where other heating methods are available. c. Governmental and other agencies, review actions to be taken in the event of an air pollution warning.

Table 2

Air Pollution Episode WARNING Conditions Emission Reduction Plan

Part A - Pollution Episode Conditions for Particulate Matter (PM₁₀) (Except Particulate from Volcanic Activity or Windblown Dust.)

Source

a. General (all sources and a. Continue alert procedures. general public)

warning area.

Emission control action to be taken as appropriate in

- b. Where legal authority exists, governmental agencies shall prohibit all use of woodstoves and fireplaces for domestic space heating except where such woodstoves and fireplaces provide the sole source of heat.
- c. The use of incinerators for disposal of solid or liquid waste is prohibited.
- d. Reduce emissions as much as possible consistent with safety to people and prevention of irreparable damage to equipment.
- Prepare for procedures to be followed if an emergency episode develops.

Table 2 - Continued

Air Pollution Episode WARNING Conditions Emission Reduction Plan

Part A - Pollution Episode Conditions for Particulate (Except Particulate from Volcanic Activity or Windblown Dust.) Continued

Source

 b. Specific additional general requirements for coal, oil or wood-fired electric power or steam generating facilities. Emission control action to be taken as appropriate in warning area.

- a. Effect a maximum reduction in emissions by switching to fuels having the lowest available ash and sulfur content.
- b. Switch to electric power sources located outside the Air Pollution Warning area or to noncombustion sources (hydro, thermonuclear).
- c. Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.

Table 2 - Continued

Air Pollution Episode WARNING Conditions Emission Reduction Plan

Part A - Pollution Episode Conditions for Particulate (Except Particulate from Volcanic Activity or Windblown Dust.) Continued

Source

c. Specific additional general requirements for manufacturing industries including: Petroleum Refining, Chemical, Primary Metals, Glass, Paper and Allied Products, Mineral Processing, Grain and Wood Processing Emission control action to be taken as appropriate in warning area.

- a. Reduce process heat load demand to the minimum possible consistent with safety and protection of equipment.
- b. Reduce emission of air contaminants from manufacturing by closing, postponing or deferring production to the maximum extent possible without causing injury to persons or damage to equipment. In so doing, assume reasonable economic hardships. Do not commence new cooks, batches or furnace changes in batch operation. Reduce continuous operations to minimum operating level where practicable.
- c. Defer trade waste disposal operations which emit solid particles, gases, vapors or malodorous substances.

Table 2 - Continued (340-27-010, 340-27-015)

Air Pollution Episode WARNING Conditions Emission Reduction Plan

Part B - Pollution Episode Conditions for Carbon Monoxide, Ozone: control actions to be taken as appropriate in warning area.

- a. All operators of motor vehicles continue alert procedures.
- b. Operation of motor vehicles carrying fewer than three persons shall be requested to avoid designated areas from 6 a.m. to 11 a.m. and 2 p.m. to 7 p.m. or other hours as may be specified by the Department. Exempted from this request are:
 - 1. Emergency vehicles
 - 2. Public transportation
 - 3. Commercial vehicles
 - 4. Through traffic remaining on Interstate or primary highways
 - 5. Traffic controlled by a preplanned strategy
- c. In accordance with a traffic control plan prepared pursuant to OAR 340-27-015(3), public transportation operators shall provide the additional service necessary to minimize the public inconvenience resulting from actions taken in accordance with paragraph b. above.
- d. For ozone episodes there shall be:
 - 1. No bulk transfer of gasoline without vapor recovery from 2 a.m. to 2 p.m.
 - 2. No service station pumping sales of gasoline from 2 a.m. to 2 p.m.
 - 3. No operation of paper coating plants from 2 a.m. to 2 p.m.
 - 4. No architectural painting or auto refinishing.
 - 5. No venting of dry cleaning solvents from 2 a.m. to 2 p.m., (except perchloroethylene).

e. When appropriate for carbon monoxide episodes during the heating season and where legal authority exists, governmental agencies shall prohibit all use of woodstoves and fireplaces for domestic space heating except where such woodstoves and fireplaces provide the sole source of heat.

Table 3 (340-27-010, 340-27-015)

Air Pollution Episode EMERGENCY Conditions Emission Reduction Plan

Pollution Episode Conditions for all Pollutants	
(Except Particulate from Volc	anic Activity or Windblown Dust.)
Source	Emission control actions to be taken as appropriate in emergency area
a. Requirements for all measures sources and general public.	a. Continue emission reduction taken under warning conditions.
	b. All places of employment, commerce, trade, public gatherings, government, industry, business, or manufacture shall immediately cease operations.
	 c. Paragraph b. above does not apply to: Police, fire, medical and other emergency services. Utility and communication services. Governmental functioning necessary for civil control and safety. Operations necessary to prevent injury to persons or serious damage to equipment or property. Food stores, drug stores and operations necessary for their supply. Operations necessary for their supply.

Table 3 (continued) (340-27-010, 340-27-015)

Air Pollution Episode EMERGENCY Conditions Emission Reduction Plan

Pollution Episode Conditions for all Pollutants (continued) (Except Particulate from Volcanic Activity or Windblown Dust.)

Source

Emission control action to be taken as appropriate in warning area.

7. Operations conducted in accordance with an approved Source Emission Reduction Plan on file with the Department.

- d. The operation of motor vehicles is prohibited except for the conduct of the functions exempted in paragraph c. above.
- e. Reduce heat and power loads to a minimum by maintaining heated occupied spaces no higher than 65°F and turning off heat to all other spaces.
- f. Where legal authority exists, governmental agencies shall prohibit all use of woodstoves and fireplaces for domestic space heating.

Table 3 (continued) (340-27-010, 340-27-015)

Air Pollution Episode EMERGENCY Conditions Emission Reduction Plan

Pollution Episode Conditions for all Pollutants (continued) (Except Particulate from Volcanic Activity or Windblown Dust.)

Source

Emission control actions to be taken as appropriate in emergency area

b. Specific additional requirements for coal oil or wood-fired electric power generating facilities operating under an approved source emission reduction plan.

c. Specific additional requirements for coal, oil or wood-fired steam generating facilities operating under an approved source emission reduction plan. a. Maintain operation at the lowest level possible consistent with prevention of damage to equipment and power production no higher than is required to supply power which is obtained elsewhere for essential services.

a. Reduce operation to lowest level possible consistent with preventing damage to equipment.

d. Specific additional requirements for industries operating under an approved source emission reduction plan including: Petroleum Refining; Chemical; Primary Metals; Glass; Paper and Allied Products; Mineral Processing; Grain; Wood Processing. a. Cease all trade waste disposal operations.

b. If meteorological conditions are expected to persist for 24 hours or more, cease all operations not required for safety and protection of equipment.

Table 4 (340-27-012)

Air Pollution Episode Conditions Due to Particulate Which is Primarily Fallout from Volcanic Activity or Windblown Dust

Ambient Particulate Control Measures to be Taken as Appropriate in Episode Area

- Part A ALERT Condition Actions
 - 1. Traffic reduction by voluntary route control in contaminated areas.
 - Voluntary motor vehicle speed limits in dusty or fallout areas.
 - 3. Voluntary street sweeping.
 - 4. Voluntary wash down of traffic areas.

Part B - WARNING Condition Actions

- 1. Continue and intensify alert procedures.
- 2. Mandated speed limits and route control in contaminated areas.
- 3. Mandate wash down of exposed horizontal surfaces where feasible.
- 4. Request businesses to stagger work hours where possible as a means of avoiding heavy traffic.

Part C - EMERGENCY Condition Actions

- 1. Continue warning level procedures, expanding applicable area if necessary.
- 2. Prohibit all except emergency traffic on major roads and thoroughfares until the area has been cleaned.
- 3. Other measures may be required at the discretion of the Governor.

DIVISION 28

[SPECIFIC AIR-POLLUTION CONTROL RULES FOR CLACKAMAS, COLUMBIA, MULTNOMAH, AND WASHINGTON COUNTIES]

Purpose and Application

340-28-001 [The rules in this division shall apply in Clackamas, Columbia, Multnomah, and Washington Counties. The purposes of these rules are to provide continuity of the air quality control program previously administered by the Columbia-Willamette Air Pollution Authority and to deal specially with the critical and unique air quality control needs of the four county area. These rules shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of these rules shall not, in any way, affect the applicability in the four county area of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cases of apparent duplication, the most stringent rule shall apply.

Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-400]

Exclusions

340-28-003 [The requirements contained in this division shall apply to all activities conducted in Clackamas, Columbia, Multnomah, and Washington Counties, other than those for which specific industrial standards have been adopted (Division 25), except for the reduction of animal matter, sections 340-25-055(1) and (2).

Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-410]

Definitions

340-28-005 [As-used in this division:

- (1) "Fuel Burning Equipment" means a device which burns a solid, liquid, or gaseous fuel, the principal purpose of which is to produce heat, except marine installations and internal combustion engines that are not stationary gas turbines.
- (2) "Odor" means the property of a substance which allows its detection by the sense of smell.

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 28 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 2-5-73, ef. 12-25-73; DEQ 88, f. 4-3-75, ef. 4-3-75(Temp), 4-25-75(Perm); DEQ 123, f. & ef. 10-20-76, Repealed by DEQ]

Open Outdoor Fires - General

340-28-010 [DEQ 61, f. 12-5-73, ef. 12-25-73; Repealed by DEQ 123, f. & ef. 10-20-76]

Open Outdoor Fires - Domestic

340-28-015 [DEQ 61, f. 12-5-73, ef. 12-25-73; DEQ 88, f. 4-3-75, ef. 4-3-75(Temp), ef. 4-25-75(Perm); Repealed by DEQ 123, f. & ef. 10-20-76]

Open Outdoor Fires - Land Clearing

340-28-020 [DEQ 61, f. 12-5-73, ef. 12-25-73; Repealed by DEQ 123, f. & ef. 10-20-76]

Incinerators and Refuse Burning Equipment 340-28-025 [

- (1) No person shall cause, permit, or maintain any emission from any refuse burning equipment which does not comply with the emission limitations of these rules.
- (2) Refuse Burning Hours:
 - (a) No person shall cause, permit, or maintain the operation of refuse burning equipment at any time other than one-half hour before sunrise to one-half hour after sunset, except with prior approval of the Department.
 - (b) Approval of the Department for the operation of such equipment may be granted upon the submission of a written request stating:
 - (A) Name and address of the applicant;
 - (B) Location of the refuse burning equipment; ----
 - (C) Description of refuse burning equipment and its control apparatus;
 - (D) Type and quantity of refuse; -
 - (E) Good cause for issuance of such approval;
 - (F) Hours during which the applicant seeks to operate the equipment;
 - (G) Time duration for which approval is sought.

Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-420]

Effective Capture of Air Contaminant Emissions

340-[28-040]30-440 Air contaminants which are, or may be, emitted to the atmosphere through doors, windows, or other openings in a structure or which are, or may be, emitted from any process not contained in a structure, shall be captured and transferred to air pollution control equipment using the most efficient and best practicable hooding, shrouding, or ducting equipment available. New sources shall comply at the time of installation.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> <u>040</u>

Odor Control Measures 340-<u>[28-045]30-450</u>

- (1) Control apparatus and equipment, using the highest and best practicable treatment currently available, shall be installed and operated to reduce to a minimum odor-bearing gases or odor-bearing particulate matter emitted into the atmosphere.
- (2) Gas effluents from incineration operations and process after-burners shall be maintained at a temperature of 1,400 degrees Fahrenheit for at least<u>a</u> 0.5 second<u>residence</u> <u>time</u>, or controlled in another manner determined by the Department to be equally or more effective.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, <u>Renumbered from 340-28-</u> 045

Storage and Handling of Petroleum Products 340-[28-050]30-460

- (1) In volumes of greater than 40,000 gallons, gasoline or any volatile petroleum distillate or organic liquid having a vapor pressure of 1.5 p.s.i.a. or greater under actual storage conditions shall be stored in pressure tanks or reservoirs or shall be stored in containers equipped with a floating roof or vapor recovery system or other vapor emission control device.
- (2) Gasoline or petroleum distillate tank car or tank loading facilities handling 20,000 gallons per day or more shall be equipped with submersible filling devices or other vapor emission control systems.

Incinerators and Refuse Burning Equipment 340-[28-025]30-420

- (1) No person shall cause, permit, or maintain any emission from any refuse burning equipment which does not comply with the emission limitations of <u>these</u> this rule[s].
- (2) Refuse Burning Hours:
 - (a) No person shall cause, permit, or maintain the operation of refuse burning equipment at any time other than one-half hour before sunrise to one-half hour after sunset, except with prior approval of the Department.
 - (b) Approval of the Department for the operation of such equipment may be granted upon the submission of a written request stating:
 - (A) Name and address of the applicant;
 - (B) Location of the refuse burning equipment;
 - (C) Description of refuse burning equipment and its control apparatus;
 - (D) Type and quantity of refuse;
 - (E) Good cause for issuance of such approval;
 - (F) Hours during which the applicant seeks to operate the equipment;
 - (G) Time duration for which approval is sought.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 025

Concealment and Masking of Emissions 340-[28-030]30-430

- (1) No person shall willfully cause or permit the installation or use of any device or use of any means such as dilution, which, without resulting in a reduction in the total amount of air contaminant emitted, conceals an emission of air contaminants which would otherwise violate <u>Fules of the</u> <u>Department</u><u>J</u> OAR Chapter 340.
- (2) No person shall cause or permit the installation or use of any device or use of any means designed to mask the emission of an air contaminant, which air contaminant causes or is likely to cause detriment to health, safety, or welfare of any person.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> <u>030</u>

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

SPECIFIC AIR POLLUTION CONTROL RULES FOR CLACKAMAS, COLUMBIA, MULTNOMAH, AND WASHINGTON_COUNTIES

[Purpose and] Application

340-[28-001]30-400 [The rules in this division]OAR 340-30-400 through 340-30-540 shall apply in Clackamas, Columbia, Multnomah, and Washington Counties. [The purposes of these rules are to provide continuity of the air quality control program previously administered by the Columbia-Willamette Air Pollution Authority and to deal specially with the critical and unique air quality control needs of the four county area. These rules shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of these rules shall not, in any way, affect the applicability in the four county area of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cases of apparent duplication, the most stringent rule shall apply.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> <u>001</u>

Exclusions

340-[28-003]30-410 The requirements contained in [this division]OAR 340-30-400 through 340-30-540 shall apply to all activities conducted in Clackamas, Columbia, Multnomah, and Washington Counties, other than those for which specific industrial standards have been adopted (Division 25), except for the reduction of animal matter, sections 340-25-055(1) and (2).

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> <u>003</u>

Hardboard Manufacturing Plants

340-30-220 No person shall cause or permit the total emissions of particulate matter from all sources within a hardboard plant, other than press/cooling vents, in excess of 0.25 pounds per 1,000 square feet of hardboard produced on a 1/8" basis of finished product equivalent.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

Air Conveying Systems 340-30-225

- (1) No person shall cause or permit the emission of particulate matter in excess of 0.1 grains per standard cubic foot from any air conveying system emitting less than or equal to 10 tons of particulate matter to the atmosphere during any 12month period beginning on or after January 1, 1990.
- (2) All air conveying systems emitting greater than 10 tons of particulate matter to the atmosphere during any 12-month period beginning on or after January 1, 1990 shall be equipped with a control system with a collection efficiency of at least 98.5 percent or equivalent control as approved by the Department.
- (3) No person shall cause or permit the emission of any air contaminant which is equal to or greater than 5% opacity from any air conveying system subject to section (2) of this rule.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

Fugitive Emissions

340-30-230 The owner or operator of a large sawmill, any plywood mill or veneer manufacturing plant, particleboard plant, hardboard plant, or charcoal manufacturing plant that is located in the La Grande Urban Growth Area shall comply with OAR 340-30-043.

Wood-Waste Boilers

340-30-210 No person shall cause or permit the emission into the atmosphere from any wood-waste boiler that is located on a plant site where the total heat input capacity from all woodwaste boilers is greater than 35 million BTU/hr:

- (1) Any air contaminant for a period or periods aggregating more than three minutes in any one hour which is equal to or greater than 10% opacity, unless the permittee demonstrates by source test that the source can comply with the emission limit in section (2) of this rule at higher opacity but in no case shall emissions equal or exceed 20% opacity for more than an aggregate of 3 minutes in any one hour. Specific opacity limits shall be included in the Air Contaminant Discharge Permit for each affected source.
- (2) Particulate matter in excess of 0.05 grains per standard cubic foot, corrected to 12% CO₂.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

Wood Particle Dryers at Particleboard Plants 340-30-215

- (1) No person shall cause or permit the total emission of particulate matter from all wood particle dryers at a particleboard plant site to exceed 0.40 pounds per 1,000 square feet of board produced by the plant on a 3/4" basis of finished product equivalent.
- (2) No person shall cause or permit the visible emissions from the wood particle dryers at a particleboard plant to exceed 10% opacity, unless the permittee demonstrates by source test that the particulate matter emission limit in section (1) can be achieved at higher visible emissions, but in no case shall emissions equal or exceed 20% opacity. Specific opacity limits shall be included in the Air Contaminant Discharge Permit for each affected source.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

- (c) No later than eight months after receiving the Department's approval of the Design Criteria, the owner or operator shall submit to the Department vendor drawings as approved for construction of any emission-control devices and specifications of any other major equipment in the emission control system in sufficient detail to demonstrate that the requirements of the Design Criteria will be satisfied;
- (d) No later than nine months after receiving the Department's approval of the Design Criteria, the owner or operator shall begin construction of any emission-control devices;
- (e) No later than sixteen months after receiving the Department's approval of Design Criteria, the owner or operator shall complete construction in accordance with the Design Criteria;
- (f) No later than May 15, 1994, the owner or operator shall demonstrate compliance with the applicable contingency requirements.
- (2) Section (1) of this rule shall not apply if the owner or operator has demonstrated by May 15, 1992 that the source is capable of being operated and is operated in continuous compliance with applicable requirements of OAR 340-30-200 through 340-30-230 and the Department has agreed with the demonstration in writing. The Department may grant an extension until November 15, 1992 for a source to demonstrate compliance under this section. The applicable requirements shall be incorporated in the Air Contaminant Discharge Permit issued to the source.
- (3) The Department may adjust the schedule specified in paragraphs (a) through (e) of section (1) of this rule if necessary to ensure timely compliance with paragraph (f) of section (1) of this rule or if necessary to conform to an existing compliance schedule with an earlier compliance demonstration date.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

SPECIFIC AIR POLLUTION CONTROL RULES FOR THE LA GRANDE URBAN GROWTH AREA

Application

340-30-200 OAR 340-30-200 through 340-30-230 shall apply in the La Grande Urban Growth Area.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

Compliance Schedule for Existing Sources 340-30-205

- (1) Except as provided in sections (2) and (3) of this rule, compliance with applicable requirements of OAR 340-30-200 through 340-30-230 for a source that is located in the La Grande Urban Growth Area prior to November 15, 1991 shall be demonstrated as expeditiously as possible, but in no case later than the following schedule:
 - (a) No later than May 15, 1992, the owner or operator shall submit Design Criteria and a Notice of Intent to Construct for emission control systems for Department review and approval; and if the Department disapproves the Design Criteria, the owner or operator shall revise the Design Criteria to meet the Department's objections and submit the revised Design Criteria to the Department no later than one month after receiving the Department's disapproval;
 - (b) No later than three months after receiving the Department's approval of the Design Criteria, the owner or operator shall submit to the Department a General Arrangement and copies of purchase orders for any emission-control devices;

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 22-1989, f. & cert. ef. 9-26-89

Dual-Fueling Feasibility Study For Wood-Waste Boilers 340-30-115

- (1) On or before July 1, 1994, the owner or operator of a plant site in the Medford-Ashland AQMA where the total heat input capacity from all wood-waste boilers is greater than 35 million BTU/hr shall submit to the Department the results of a dual-fueling feasibility study conducted in accordance with a study protocol submitted under section (2) of this rule which has been approved by the Department.
- On or before January 1, 1993, a person subject to section (2) (1) of this rule shall submit to the Department for approval a study protocol to evaluate the feasibility, costs and benefits of implementing a program to provide alternate fueling capability after December 31, 1994, for wood-waste boilers during periods of actual, anticipated or potential exceedance of the ambient air quality standard for PM_{10} . The protocol shall identify the methodology and schedule for evaluating the adequacy of supply of natural gas and other alternate fuels during the winter months, the cost and technical feasibility of modifying existing woodwaste boilers, the air quality benefits and costs of fuel switching prior to or during periods of poor air quality, and relevant maintenance and operational concerns including start-up and shut-down impacts.
- (3) One or more persons subject to section (1) of this rule may submit a combined study protocol to the Department, conduct a combined study and submit combined results to the Department. Such a combined study shall evaluate the cost and technical feasibility of modifying existing wood-waste boilers at the plant site of each participating person. The combined study may jointly evaluate fuel supply, air quality, and maintenance and operational concerns applicable to all participating persons. A combined study shall be conducted by an independent contractor hired by the participating persons and approved by the Department.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 22-1988, f. & cert. ef. 9-26-89

Rebuilt Boilers

340-30-067 Rebuilt boilers shall immediately comply with the requirements of OAR 340-30-015(3) except that in the Grants Pass Urban Growth Area this provision will apply to sources that are rebuilt after they have complied with <u>foar</u> OAR 340-30-015(1).

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 22-1988, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

Open Burning

340-30-070 No open burning of domestic waste shall be initiated on any day or at any time when the Department advises fire permit issuing agencies that open burning is not allowed because of adverse meteorological or air quality conditions.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 4-1978, f. & ef. 4-7-78

Emission Offsets 340-30-110 [DEQ 9-1979, f. & ef. 5-3-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Emission Offsets

340-30-111 In the Medford-Ashland AQMA, emission offsets required in accordance with OAR 340-20-240 for new or modified sources shall provide reductions in emissions equal to 1.2 times the emission increase from the new or modified sources.

- (a) Wood Waste Boilers with heat input greater than 35 million Btu/hr. - Once every year;
- (b) Veneer Dryers Once every year during 1991, 1992, and 1993 and once every 3 years thereafter;
- (c) Wood Particle Dryers at Hardboard and Particleboard Plants - Once every year;
- (d) Charcoal Producing Plants Once every year.
- (e) Wood Waste Boilers with heat input equal to or less than 35 million BTU/hr with dry emission control equipment - Once in 1992 and once every 3 years thereafter.
- (2) Source testing shall begin at these frequencies within 90 days of the date by which compliance is to be achieved for each individual emission source.
- (3) These source testing requirements shall remain in effect unless waived in writing by the Department because of adequate demonstration that the source is consistently operating at lowest practicable levels, or that continuous emission monitoring systems are producing equivalent information.
- (4) Source tests on wood waste boilers shall not be performed during periods of soot blowing, grate cleaning, or other abnormal operating conditions. The steam production rate during the source test shall be considered the maximum permittee's steaming rate for the boiler.
- (5) Source tests shall be performed within 90 days of the startup of air pollution control systems.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 14-1986, f. & ef. 6-20-86; DEQ 22-1988, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

Total Plant Site Emissions 340-30-060 [DEQ 4-1978, f. & ef. 4-7-78; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

New Sources

340-30-065 New sources shall be required to comply with OAR 340-30-015(3) and 340-30-02[0]1 through 340-30-111 immediately upon initiation of operation.

responsible for the affected facilities based on unavailability of suitable equipment or other problems.

- (2) At a minimum, the monitoring clan submitted under paragraph(1) (a) of this section shall include:
 - (a) Continuous monitoring and monthly reporting of carbon monoxide concentration and oxygen concentration for any wood-waste fired boiler with a heat input greater than 35 million BTU/hr or for any wood-waste boiler using a wet scrubber as pollution control equipment and steam production rate for any wood-waste fired boiler;
 - (b) Continuous monitoring and monthly reporting of pressure drop, scrubber water pressure, and scrubber water flow for any wood-waste fired boiler, veneer dryer, particle dryer, or fiber dryer using a wet scrubber as pollution control equipment;
 - (c) Continuous monitoring and monthly reporting of opacity for any wood-waste fired boiler not controlled by a wet scrubber; and
 - (d) Continuous availability by electronic means to the Department of the emission and performance data specified in subsection (2)(a) through (c) of this section for any wood-waste fired boiler subject to the emission requirements of OAR 340-30-015.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 22-1989, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

Source Testing

340-30-055

(1) The person responsible for the following sources of particulate emissions shall make or have made tests to determine the type, quantity, quality, and duration of emissions, and/or process parameters affecting emissions, in conformance with test methods on file with the Department at the following frequencies:

Continuous Monitoring

340-30-050

- (1)The Department will require the installation and operation of instrumentation for measuring and recording emissions and/or the parameters which affect the emission of air contaminants from wood-waste fired boilers, veneer dryers, fiber dryers, and particle dryers to ensure that the sources and the air pollution control equipment are operated at all times at their full efficiency and effectiveness so that the emission of air contaminants is kept at the lowest practicable level. The instrumentation shall be periodically calibrated. The method and frequency of calibration shall be approved in writing by the Department. Continuous monitoring equipment and operation shall be in accordance with continuous emission monitoring systems guidance provided by the Department and shall be consistent, where applicable, with the EPA performance specifications and quality assurance procedures outlined in 40 CFR 60, Appendices B and F, and the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III. The recorded information shall be kept for a period of at least one year and shall be made available to the Department upon request. The selection, installation, and use of the instrumentation shall be done according to the following schedule:
 - (a) <u>[Within six months from the effective date of these rules]By March 27, 1990</u>, the persons responsible for the affected facilities shall submit to the Department a plan for process and or emission monitoring. The Department's primary criterion for review and approval of the plans will be the ability of proposed instrumentation to demonstrate continuous compliance with[these regulations] OAR 340-30-012 through 340-30-115;
 - (b) Within one year from the Department's approval of the plan(s), but no later than July 1, 1992, the persons responsible for the affected facilities shall purchase, install, place in operation the instrumentation as approved, verify that it is capable of demonstrating continuously the compliance status of the affected facilities, and commence continuous monitoring and reporting results to the Department, at a frequency and in a form agreed upon by the Department and the responsible persons;
 - (c) The implementation date in subsection (1)(b) of this section can be extended up to one year, subject to Department approval, if justified by the persons

devices and specifications of other major equipment in the emission control system (such as fans, scrubber-medium recirculation and make up systems) in sufficient detail to demonstrate that the requirements of the Design Criteria will be satisfied;

- (d) Within one year of receiving the Department's approval of Design Criteria, complete construction;
- (e) Within fifteen months of receiving the Department's approval of Design Criteria, but no later than June 30, 1991, demonstrate compliance.
- (2) Compliance with the emission limits for wood-waste boilers in OAR 340-30-015(3) shall be provided according to OAR 340-30-067 or the following schedule, whichever occurs first:
 - By no later than September 1, 1993, submit Design Criteria and a Notice of Intent to Construct for emission control systems for Department review and approval;
 - (b) Within three months of receiving the Department's approval of the Design Criteria, submit a General Arrangement and copies of purchase orders for the emission-control devices;
 - (c) Within two months of placing purchase orders for emission-control devices, submit vendor drawings as approved for construction of the emission-control devices and specifications of other major equipment in the emission-control system (such as fans, scrubber-medium recirculation and make up systems) in sufficient detail to demonstrate that the requirements of the Design Criteria will be satisfied;
 - (d) Within one year of receiving the Department's approval of Design Criteria, complete construction;
 - (e) Within fifteen months of receiving the Department's approval of Design Criteria, but no later than December 31, 1994, demonstrate compliance.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 22-1989, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

OREGON ADMINISTRATIVE RULES

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- (b) Preventative maintenance procedures, schedule and records;
- (c) Logging of the occurrence and duration of all upsets, breakdowns and malfunctions which result in excessive emissions;
- (d) Routine follow-up evaluation of upsets to identify the cause of the problem and changes needed to prevent a recurrence;
- (e) Periodic source testing of pollution control units as required by air contaminant discharge permits;
- (f) Inspection of internal wear points of pollution control equipment during scheduled shutdowns; and
- (g) Inventory of key spare parts.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u> **& 468A**</u> Hist.: DEQ 6-1983, f. & ef. 4-18-83; DEQ 22-1989, f. & cert. ef. 9-26-89

Compliance Schedules

340-30-045 [DEQ 4-1978, f. & ef. 4-7-78; DEQ 29-1980, f. & ef. 10-29-80; DEQ 14-1981, f. & ef. 5-6-81; DEQ 6-1983, f. & ef. 4-18-83; Repealed by DEQ 22-1989, f. & cert. ef. 9-26-89]

Emission-Limits Compliance Schedules 340-30-046

- (1) Compliance with the emission limits for wood-waste boilers in the Grants Pass area and veneer dryers established in OAR 340-30-015(1) and (2) and 340-30-021 shall be provided according to the following schedules:
 - (a) <u>{Within three months of the effective date of these</u> <u>rules}By December 25, 1989</u>, submit Design Criteria and a Notice of Intent to Construct for emission control systems for Department review and approval;
 - (b) Within three months of receiving the Department's approval of the Design Criteria, submit a General Arrangement and copies of purchase orders for the emission-control devices;
 - (c) Within two months of placing purchase orders for emission-control devices, submit vendor drawings as approved for construction of the emission-control

airborne. Such reasonable measures shall include, but not be limited to the following:

- (a) Scheduled application of asphalt, oil, water, or other suitable chemicals on unpaved roads, log storage or sorting yards, materials stockpiles, and other surfaces which can create airborne dust;
- (b) Full or partial enclosure of materials stockpiled in cases where application of oil, water, or chemicals are not sufficient to prevent particulate matter from becoming airborne;
- (c) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- (d) Adequate containment during sandblasting or other similar operations;
- (e) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; and
- (f) Procedures for the prompt removal from paved streets of earth or other material which does or may become airborne.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 6-1983, f. & ef. 4-18-83; DEQ 22-1989, f. & cert. ef. 9-26-89

Requirement for Operation and Maintenance Plans (Medford-Ashland AQMA Only)

340-30-044

- (1) Operation and Maintenance Plans shall be prepared by all holders of Air Contaminant Discharge Permits except minimal source permits and special letter permits. All sources subject to regular permit requirements shall be subject to operation and maintenance requirements.
- (2) The purposes of the operation and maintenance plans are to:
 (a) Reduce the number of upsets and breakdowns in particulate control equipment;
 - (b) Reduce the duration of upsets and downtimes; and
 - (c) Improve the efficiency of control equipment during normal operations.
- (3) The operation and maintenance plans should consider, but not be limited to, the following:
 - (a) Personnel training in operation and maintenance;

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 29-1980, f. & ef. 10-29-80

Charcoal Producing Plants 340-30-040

- (1) No person shall cause or permit the emission of particulate matter from charcoal producing plant sources including, but not limited to, charcoal furnaces, heat recovery boilers, and wood dryers using any portion of the charcoal furnace off-gases as a heat source, in excess of a total from all sources within the plant site of 10.0 pounds per ton of char produced (5.0 grams per Kilogram of char produced).
- (2) Emissions from char storage, briquette making, boilers not using charcoal furnace off-gases, and fugitive sources are excluded in determining compliance with section (1) of this rule.
- (3) Charcoal producing plants as described in section (1) of this rule shall be exempt from the limitations of OAR 340-21-030(1) and (2) and 340-21-040 which concern particulate emission concentrations and process weight.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 14-1986, f. & ef. 6-20-86; DEQ 22-1989, f. & cert. ef. 9-26-89

Control of Fugitive Emissions (Medford-Ashland AQMA Only) 340-30-043

- (1) Large sawmills, all plywood mills and veneer manufacturing plants, particleboard and hardboard plants, charcoal manufacturing plants, stationary asphalt plants[and], stationary rock crushers, and sources subject to OAR 340-21-245 or 340-30-230 shall prepare and implement site-specific plans for the control of fugitive emissions. (The air contaminant sources listed are described in OAR 340-20-155, Table 1, paragraphs 10a, 14a, 14b, 15, 17, 18, 29, 34a and 42a, respectively.)
- (2) Fugitive emission control plans shall identify reasonable measures to prevent particulate matter from becoming

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 22-1989, f. & cert. ef. 9-26-89

Wood Particle Dryers at Particleboard Plants 340-30-030

- (1) No person shall cause or permit the total emission of particulate matter from all wood particle dryers at a particleboard plant site to exceed 0.40 pounds per 1,000 square feet of board produced by the plant on a 3/4" basis of finished product equivalent.
- (2) No person shall cause or permit the visible emissions from the wood particle dryers at a particleboard plant to exceed 10% opacity, unless the permittee demonstrates by source test that the particulate matter emission limit in section (1) can be achieved at higher visible emissions, but in no case shall emissions equal or exceed 20% opacity. Specific opacity limits shall be included in the Air Contaminant Discharge Permit for each affected source.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 14-1981, f. & ef. 5-6-81; DEQ 14-1986, f. & ef. 6-20-86; AQ 8, f. & ef. 11/13/91

Hardboard Manufacturing Plants

340-30-031 No person shall cause or permit the total emissions of particulate matter from all facilities at a hardboard plant to exceed 0.25 pounds per 1,000 square feet of hardboard produced on a 1/8" basis of finished product equivalent.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 14-1981, f. & ef. 5-6-81; DEQ 14-1986, f. & ef. 6-20-86

Wigwam Waste Burners

340-30-035 No person owning or controlling any wigwam burner shall cause or permit the operation of the wigwam burner.

Department as being capable of complying with subsections (1)(a) through (g);

- (b) The veneer dryer is equipped with an emission control system which has been approved in writing by the Department and is capable of complying with subsections (1)(a) through (g); or
- (c) The owner or operator has demonstrated and the Department has agreed in writing that the dryer is capable of being operated and is operated in continuous compliance with subsections (1)(a) through (g).
- (4) Each veneer dryer shall be maintained and operated at all times such that air contaminant generating processes and all contaminant control equipment shall be at full efficiency and effectiveness so that the emission of air contaminants is kept at the lowest practicable levels.
- (5) No person shall willfully cause or permit the installation or use of any means, such as dilution, which, without resulting in a reduction in the total amount of air contaminants emitted, conceals an emission which would otherwise violate this rule.
- (6) Where effective measures are not taken to minimize fugitive emissions, the Department may require that the equipment or structures in which processing, handling and storage are done, be tightly closed, modified, or operated in such a way that air contaminants are minimized, controlled, or removed before discharge to the open air.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 22-1989, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

Air Conveying Systems (Medford-Ashland AQMA Only)

340-30-025 All air conveying systems emitting greater than 10 tons per year of particulate matter to the atmosphere at the time of adoption of <u>[these] this</u> rule[s] shall, with the prior written approval of the Department, be equipped with a control system with collection efficiency of at least 98.5 percent.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Veneer Dryer Emission Limitations

340-30-020 [DEQ 4-1978, f. & ef. 4-7-78; DEQ 3-1980, f. & ef. 1-28-80; Repealed by DEQ 10-1985, f. & ef. 8-8-85]

Veneer Dryer Emission Limitations 340-30-021

- (1) No person shall operate any veneer dryer such that visible air contaminants emitted from any dryer stack or emission point exceed the opacity limits specified in subsections (a) and (b) or such that emissions of particulate matter exceed the mass emission limits of subsections (c) through (g):
 - (a) An average operating opacity of 5%; and
 - (b) A maximum opacity of 10%, unless the permittee demonstrates by source test that the emission limits in subsections (c) through (g) can be achieved at higher visible emissions than specified in subsections (a) and (b), but in no case shall emissions exceed the visible air contaminant limitations of section 340-25-315(1)(b). Specific opacity limits shall be included in the Air Contaminant Discharge Permit for each affected source.
 - (c) 0.30 pounds per 1,000 square feet of veneer dried (3/8" basis) for direct natural gas or propane fired veneer dryers;
 - (d) 0.30 pounds per 1,000 square feet of veneer dried (3/8" basis) for steam heated veneer dryers;
 - (e) 0.40 pounds per 1,000 square feet of veneer dried (3/8" basis) for direct wood fired veneer dryers using fuel which has a moisture content by weight less than 20%;
 - (f) 0.45 pounds per 1,000 square feet of veneer dried (3/8" basis) for direct wood fired veneer dryers using fuel which has a moisture content by weight greater than 20%;
 - (g) In addition to subsections (e) and (f), 0.20 pounds per 1,000 pounds of steam generated in boilers which exhaust combustion gases to the veneer dryer.
- (2) Exhaust gases from fuel-burning equipment vented to the veneer dryer are exempt from OAR 340-21-020.
- (3) No person shall operate a veneer dryer unless:
 - (a) The owner or operator has submitted a program and time schedule for installing an emission control system which has been approved in writing by the

- (2) No person owning or controlling any wood waste boiler with a heat input greater than 35 million BTU/hour shall cause or permit the emission of any air contaminant into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour equal to or greater than 10 percent opacity, unless the permittee demonstrates by source test that the emission limit in paragraph (1) of this section can be achieved at higher visible emissions, but in no case shall emissions equal or exceed 20% opacity for more than an aggregate of 3 minutes in any one hour. Specific opacity limits shall be included in the Air Contaminant Discharge Permit for each affected source.
- (3) In accordance with the compliance schedule in 340-30-046(2), no person shall cause or permit the emission of particulate matter from any boiler with a heat input greater than 35 million Btu/hour unless the boiler has been equipped with emission control equipment which:
 - (a) Limits emissions of particulate matter to LAER as defined by the Department at the time the Department approves the control device; and
 - (b) Limits visible emissions such that their opacity does not exceed 5% for more than an aggregate of 3 minutes in any one hour, unless the permittee demonstrates by source test that emissions can be limited to LAER at higher visible emissions, but in no case shall emissions equal or exceed 10% opacity for more than an aggregate of 3 minutes in any one hour. Specific opacity limits shall be included in the Air Contaminant Discharge Permit for each affected source.
 - (c) For purposes of OAR 340-20-265 and 340-20-310, the boiler mass emission limits shall be based on particulate matter emissions of 0.030 grains per standard dry cubic foot, corrected to 12% CO₂.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 29-1980, f. & ef. 10-29-80; DEQ 14-1986, f. & ef. 6-20-86; DEQ 22-1989, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

- [(36)](39) "Wigwam Waste Burner" means a burner which consists
 of a single combustion chamber, has the general
 features of a truncated cone, and is used for the
 incineration of wastes.
- [(37)](40) "Wood Waste Boiler" means equipment which uses indirect heat transfer from the products of combustion of wood waste to provide heat or power.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 9-1979, f. & ef. 5-3-79; DEQ 3-1980, f. & ef. 1-28-80; DEQ 14-1981, f. & ef. 5-6-81; DEQ 22-1989, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

SPECIFIC AIR POLLUTION CONTROL RULES FOR THE MEDFORD-ASHLAND AIR QUALITY MAINTENANCE AREA AND THE GRANTS PASS URBAN GROWTH AREA

Application

340-30-012 OAR 340-30-012 through 340-30-115 shall apply in the Medford-Ashland Air Quality Maintenance Area (AQMA) and the Grants Pass Urban Growth Area (Area) except where expressly provided that a rule applies only in the Medford-Ashland AQMA.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 8, f. & ef. 11/13/91

Wood Waste Boilers

- 340-30-015
- (1) No person shall cause or permit the emission of particulate matter from any wood waste boiler with a heat input greater than 35 million BTU/hr in excess of 0.050 grain per dry standard cubic foot of exhaust gas, corrected to 12 percent carbon dioxide.

matter emission determinations shall consist of the average of three separate consecutive runs. For sources tested using DEQ Method 5 or DEQ Method 7, each run shall have a minimum sampling time of one hour, a maximum sampling time of eight hours, and a minimum sampling volume of 31.8 dscf. For sources tested using DEQ Method 8, each run shall have a minimum sampling time of 15 minutes and shall collect a minimum particulate sample of 100 mg. Wood waste boilers and charcoal producing plants shall be tested with DEQ Method 5; veneer dryers, wood particle dryers, fiber dryers and press/cooling vents shall be tested with DEQ Method 7; and air conveying systems shall be tested with DEQ Method 8.

- [(29)](32) "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.
- [(30)](33) "Rebuilt Boiler" means a physical change after April 29, 1988, to a wood-waste boiler or its aircontaminant emission control system which is not considered a "modified source" and for which the fixed, depreciable capital cost of added or replacement components equals or exceeds fifty percent of the fixed depreciable cost of a new component which has the same productive capacity.
- [(31)](34) "Source" means any structure, building, facility, equipment, installation or operation, or combination thereof, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person, or by persons under common control.
- [(32)](35) "Standard Conditions" means a temperature of 60 degrees Fahrenheit (15.6 degrees Celsius) and a pressure of 14.7 pounds per square inch absolute (1.03 Kilograms per square centimeter).
- [(33)](36) "Veneer" means a single flat panel of wood not exceeding 1/4 inch in thickness formed by slicing or peeling from a log.
- [(34)](37) "Veneer Dryer" means equipment in which veneer is dried.
- [(35)](38) "Wood-fired Veneer Dryer" means a veneer dryer which is directly heated by the products of combustion of wood fuel in addition to or exclusive of steam or natural gas or propane combustion.

Section 36, T35S, R1W; thence south along the Willamette Meridian to the SE corner of Section 25. T37S, R1W; thence SE along a line to the SE corner of Section 9, T39S, R2E; thence SSE to the corner of Section 22, T39S, R2E; thence south to the SE corner of Section 27, T39S, R2E; thence SW to the SE corner of Section 33, T39S, R2E; thence NW to the NW corner of Section 36, T39S, R1E; thence west to the SW corner of Section 26, T39S, T1E; thence west to the SW corner of Section 12, T39S, R1W; thence NW along a line to the SW corner of Section 20, T38S, R1W; thence west to the SW corner of Section 24, T38S, R2W; thence NW along a line to the SW corner of Section 4, T38S, R2W; thence west to the SW corner of Section 5, T38S, R2W; thence NW along a line to the SW corner of Section 31, T37S, R2W; thence north along a line to the Roque River, thence north and east along the Rogue River to the north boundary of Section 32, T35S, R1W; thence east along a line to the point of beginning.

- [(22)](24) "Modified Source" means any source with a "major modification" as defined in OAR 340-20-225.
- [(23)](25) "New Source" means any source not [previously existing] in existence prior to April 7, 1978 or any source not having an Air Contaminant Discharge Permit [on the effective date of these rules] as of April 7, 1978.
- (26) "Odor" means that property of an air contaminant that affects the sense of smell.
- [(24)](27) "Offset" is defined by OAR 340-20-225.
- [(25)](28) "Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background as measured in accordance with the Department's Source Sampling Manual.
- [(26)](29)
 "Open Burning" means burning conducted in such a
 manner that combustion air and combustion products
 may not be effectively controlled including, but not
 limited to, burning conducted in open outdoor fires,
 burn barrels, and backyard incinerators.
- [(27)](30) "Particleboard" means matformed flat panels consisting of wood particles bonded together with synthetic resin or other suitable binders.
- **[(28)](31)** "Particulate Matter" means all solid or liquid material, other than uncombined water, emitted to the ambient air as measured in accordance with the Department Source Sampling Manual. Particulate

- [(12)](14) "Fuel Moisture Content By Weight Greater Than 20 Percent" means bark, hogged wood waste, or other wood with an average moisture content of more than 20 percent by weight on a wet basis as used for fuel in the normal operation of a wood-fired veneer dryer as measured by ASTM D4442-84 during compliance source testing.
- f(13)](15) "Fuel Moisture Content By Weight Less Than 20 Percent" means pulverized ply trim, sanderdust, or other wood with an average moisture content of 20 percent or less by weight on a wet basis as used for fuel in the normal operation of a wood-fired veneer dryer as measured by ASTM D4442-84 during compliance source testing.
- [(14)](16) "Fugitive Emissions" means dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof not easily given to measurement, collection and treatment by conventional pollution control methods.
- [(15)](17)
 "General Arrangement", in the context of the
 compliance schedule requirements in section 340-32045(2), means drawings or reproductions which show as
 a minimum the size and location of the control
 equipment on a source plot plan, the location of
 equipment served by the emission-control system, and
 the location, diameter, and elevation above grade of
 the ultimate point of discharging contaminants to the
 atmosphere.
- [(16)](18) "Grants Pass Urban Growth Area" and "Grants Pass Area" means the area within the Grants Pass Urban Growth Boundary as shown on the Plan and Zoning Maps for the City of Grants Pass as of 1 February 1988.
- [(17)](19)
 "Hardboard" means a flat panel made from wood that
 has been reduced to basic wood fibers and bonded by
 adhesive properties under pressure.
- (18) (20) "La Grande Urban Growth Area" means the area within the La Grande Urban Growth Boundary as shown on the Plan and Zoning Maps for the City of La Grande as of 1 October 1991.
- [(19)](21) "Lowest Achievable Emission Rate" or "LAER" is defined by section 340-20-225
- [(20)](22) "Maximum Opacity" means the opacity as determined by EPA Method 9 (average of 24 consecutive observations).
- [(21)](23) "Medford-Ashland Air Quality Maintenance Area" and "Medford-Ashland AQMA" is defined as beginning at a point approximately one mile NE of the town of Eagle Point, Jackson County, Oregon, at the NE corner of

OREGON ADMINISTRATIVE RULES

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"Charcoal Producing Plant" means an industrial [(3)]**(4)** operation which uses the destructive distillation of wood to obtain the fixed carbon in the wood. "Collection Efficiency" means the overall performance $\frac{(4)}{(5)}$ of the air cleaning device in terms of ratio of weight of material collected to total weight of input to the collector. [(5)](6) "Department" means Department of Environmental Quality. [(6)](7) "Design Criteria" means the numerical as well as verbal description of the basis of design, including but not necessarily limited to design flow rates, temperatures, humidities, contaminant descriptions in terms of types and chemical species, mass emission rates, concentrations, and specification of desired results in terms of final emission rates and concentrations, and scopes of vendor supplies and owner-supplied equipment and utilities, and a description of any operational controls. "Domestic Waste" means combustible household waste, [(7)](8) other than wet garbage, such as paper, cardboard, leaves, yard clippings, wood, or similar materials generated in a dwelling housing four (4) families or less, or on the real property on which the dwelling is situated. [(8)]**(9)** "Dry Standard Cubic Foot" means the amount of gas that would occupy a volume of one cubic foot, if the gas were free of uncombined water at standard conditions. "Emission" means a release into the outdoor [(9)]**(10)** . atmosphere of air contaminants. "EPA Method 9" means the method for Visual [(10)](11) Determination of the Opacity of Emissions From Stationary Sources as promulgated by the U.S. Environmental Protection Agency in Title 40 of the Code of Federal Regulations, Part 60, Appendix A, Method 9. "Facility" means an identifiable piece of process f(11) (12) equipment. A stationary source may be comprised of one or more pollutant-emitting facilities. (13) "Fuel Burning Equipment" means a device which burns a solid, liquid, or gaseous fuel, the principal purpose of which is to produce heat, except marine installations and

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internal combustion engines that are not stationary gas

turbines.

DIVISION 30

SPECIFIC AIR POLLUTION CONTROL RULES FOR AREAS WITH UNIQUE AIR QUALITY CONTROL NEEDS

Purpose and Application

340-30-005 The purpose of [these rules] this Division is to deal specifically with the unique air quality control needs of areas of the state specified in OAR 340-30-012,[and] OAR 340-30-200, OAR 340-30-400 and OAR 340-30-600. [These rules] This Division shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of [these rules] this Division shall not, in any way, affect the applicability in the specified areas of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cases of apparent conflict, the most stringent rule shall apply.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 22-1989, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

Definitions

340-30-010 As used in this Division {, and unless-otherwise required by context}:

(1) "Air contaminant" means a dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter, or any combination thereof.

- (1)](2) "Air Conveying System" means an air moving device, such as a fan or blower, associated ductwork, and a cyclone or other collection device, the purpose of which is to move material from one point to another by entrainment in a moving airstream.
- (2)](3) "Average Operating Opacity" means the opacity of emissions determined using EPA Method 9 on any three days within a 12-month period which are separated from each other by at least 30 days ; a violation of the average operating opacity limitation is judged to have occurred if the opacity of emissions on each of the three days is greater than the specified average operating opacity limitation.

CHAPTER 340, DIVISION 29 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Rules and Regulations of the Mid-Willamette Valley Air Pollution Authority

340-29-010 [DEQ 29-1979, f. & ef. 7-6-79; Repealed by DEQ 11-1982, f. & ef. 6-18-82]

Odors

340-29-011 -

- (1) Unless otherwise regulated by specific odor regulation or standard, no person shall cause or permit the emission of odorous matter in such a manner as to cause a public nuisance or that occurs for sufficient duration or frequency so that two measurements made within a period of one (1) hour, separated by at least 15 minutes, off the property surrounding the emission point, that is equal to or greater than a Scentometer No. 0 or equivalent dilutions in areas used for residential, recreational, educational, institutional, hotel, retail sales or other similar purposes.
- (2) In all land use areas other than section (1) of this rule, release of odorous matter shall be prohibited if equal to or greater than a Scentometer No. 2 odor strength, or equivalent dilutions.

Stat. Auth.: ORS Ch. 468

Hist.:][DEQ 11-1982, f. & ef. 6-18-82, Renumbered to OAR 340-30-610]

Other Emissions 340-29-020 [DEQ 11-1982, f. & ef. 6-18-82; Repealed by DEQ 4-1983, f. & ef. 4-18-83]

Emission Restrictions --- Large Particulate Matter

340-29-030 [No person shall cause or permit the emission of any particulate matter which is larger than 250 microns in size provided such particulate matter does or will deposit upon real property of another person.

Stat. Auth.: ORS Ch. 468
Hist.:][DEQ 11-1982, f. & ef. 6-18-82, Renumbered to OAR 340-30620]

Open Burning 340-29-055 [DEQ 109, f. 3-15-76, ef. 3-25-76; Repealed by DEQ 123, f. & ef. 10-20-76]

OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISION 29 - DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 29

[SPECIFIC AIR POLLUTION CONTROL RULES FOR BENTON, LINN, MARION, POLK, AND YAMHILL COUNTIES]

Purposes and Application

340-29-001 [The rules in this Division shall apply in Benton, Linn, Marion, Polk and Yamhill counties. The purpose of these rules are to deal specifically with the air quality control needs of the five county area. These rules shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of these rules shall not, in any way, affect the applicability in the five county area of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cases of apparent duplication, the most stringent rule shall apply.

Stat. Auth.: ORS Ch. 468

Hist.:][DEQ 109, f. 3-15-76, ef. 3-25-76; DEQ 11-1982, f. & ef. 6-18-82, Renumbered to OAR 340-30-600]

Definitions

340-29-005 [As used in this Division:

- (1) "Air contaminant" means dust, fumes, mist, smoke, other particulate matter, vapor, gas, odorous substance, or any combination thereof. —
- (2) "Emission" means the release into the outdoor atmosphere of air contaminants. —
- (3) "Odor" means that property of an air contaminant that affects the sense of smell.
- (4) "Particulate matter" means any matter, except uncombined water, which exists as a solid or liquid at standard conditions.
- (5) "Person" or "Persons" means any individual, public or private corporation, political subdivision, agency, board, department, or bureau of the state, municipality, partnership, association, firm, trust, estate or any other legal entity whatsoever which is recognized by law as the subject of rights and duties.

Stat. Auth.: ORS Ch. 468
Hist.:][DEQ 109, f. 3-15-76, ef. 3-25-76; DEQ 11-1982, f. & ef.
6-18-82, Repealed by DEQ]

OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISION 28 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Stat. Auth.: ORS Ch. Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-540]

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Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-510]

Particulate Matter Size Standard

340-28-080 [No person shall cause or permit the emission of any particulate matter which is larger than 250 microns in size provided such particulate matter does or will deposit upon the real property of another person.

Stat. Auth.: ORS Ch. Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-520]

Sulfur Dioxide Emission Limitations

340-28-085 [No person shall cause or permit emission of sulfur dioxide in excess of 1000 ppm from any air contamination source, except those persons burning fuel conforming to provisions of rules relating to the sulfur content of fuels. This rule is applicable to sources installed, constructed, or modified after October 1, 1970.

Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-530]

Odors

340-28-090 🕂

- (1) No person shall cause or permit the emission of odorous matter in such manner as to contribute to a condition of air pollution, or exceed:
 - (a) A scentometer No. 0 odor strength or equivalent dilution in residential and commercial areas.
 - (b) A scentometer-No. 2 odor strength or equivalent dilution in all other land use areas.

Scentometer Readings: Scentometer No. and Concentration Range-No. of Thresholds, respectively:

0 ----- 1 to 2 1 ----- 2 to 8 2 ---- 8 to 32 3 ---- 32 to 128

(2) A violation of this rule shall have occurred when two measurements made within a period of one hour, separated by at least 15 minutes, off the property surrounding the air contaminant source exceeds the limitations of section (1).

Emission Standards - General

340-28-065 [Compliance with any specific emission standard in these rules does not preclude required compliance with any other applicable emission standard or requirement contained in any of the rules of the Department.

Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-490]

Visible Air Contaminant Standards

340-28-070 [No person owning, operating, or maintaining non-fuel burning equipment sources of emissions shall discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than thirty (30) seconds in any one hour which is equal to or greater than 20 percent opacity.

Stat. Auth.: ORS Ch. Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-500]

Particulate Matter Weight Standards 340-28-075 [

- (1) The maximum allowable emission of particulate matter from any fuel burning equipment shall:
 - (a) Be a function of maximum heat input and shall be determined from Figure 1, except from existing fuel burning equipment utilizing wood residue, it shall be 0.2 grain, and from new fuel burning equipment utilizing wood residue, it shall be 0.1 grain for each standard cubic foot of exhaust gas, calculated to 12 percent carbon dioxide;
 - (b) Not exceed Smoke Spot #2 for distillate fuel and #4 for residual fuel, measured by ASTM D2156-65, "Standard Method for Test for Smoke Density of the Flue Cases from Distillate Fuels"
- (2) The maximum allowable emission of particulate matter from any refuse burning equipment shall be a function of the maximum heat input from the refuse only and shall be determined from Figure 2.

Fublications: The publication(s) referred to or incorporated by reference in this rule is available from the office of the Secretary of State or Department of Environmental Quality.]

OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISION 28 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Storage and Handling of Petroleum Products

340-28-050 [

- (1) In volumes of greater than 40,000 gallons, gasoline or any volatile petroleum distillate or organic liquid having a vapor pressure of 1.5 p.s.i.a. or greater under actual storage conditions shall be stored in pressure tanks or reservoirs or shall be stored in containers equipped with a floating roof or vapor recovery system or other vapor emission control device.
- (2) Gasoline or petroleum distillate tank car or tank loading facilities handling 20,000 gallons per day or more shall be equipped with submersible filling devices or other vapor emission control systems.
- (3) Gasoline tanks with a capacity of 500 gallons or more, installed after January 1, 1970, shall be equipped with submersible filling device or other vapor emission control systems.

Stat. Auth.: ORS Ch. Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-460]

Ships

340-28-055 [While in those portions of the Willamette River and Columbia River which pass through or adjacent to Clackamas, Columbia, and Multnomah Counties, each ship shall minimize emissions from soot blowing and shall be subject to the emission standards and rules for visible emissions and particulate matter size.

Stat. Auth.: ORS Ch. Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-470]

Upset Condition

340-28-060 [Emission of air contaminants in excess of applicable standards as a result of equipment breakdown shall not be considered a violation of said standards provided the conditions of rule 340-21-075 are met.

Stat. Auth.: ORS Ch. Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-480]

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Concealment and Masking of Emissions

340-28-030 🕂

- (1) No person shall willfully cause or permit the installation or use of any device or use of any means such as dilution, which, without resulting in a reduction in the total amount of air contaminant emitted, conceals an emission of air contaminants which would otherwise violate rules of the Department.
- (2) No person shall cause or permit the installation or use of any device or use of any means designed to mask the emission of an air contaminant, which air contaminant causes or is likely to cause detriment to health, safety, or welfare of any person.

Stat. Auth.: ORS Ch. Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-430]

Effective Capture of Air Contaminant Emissions

340-28-040 [Air contaminants which are, or may be, emitted to the atmosphere through doors, windows, or other openings in a structure or which are, or may be, emitted from any process not contained in a structure, shall be captured and transferred to air pollution control equipment using the most efficient and best practicable hooding, shrouding, or ducting equipment available. New sources shall comply at the time of installation.

Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-440]

Odor Control Measures

340-28-045 [

- (1) Control apparatus and equipment, using the highest and best practicable treatment currently available, shall be installed and operated to reduce to a minimum odor-bearing gases or odor-bearing particulate matter emitted into the atmosphere.
- (2) Gas effluents from incineration operations and process after-burners shall be maintained at a temperature of 1,400 degrees Fahrenheit for at least 0.5 second or controlled in another manner determined by the Department to be equally or more effective.

Stat. Auth.: ORS Ch.

Hist.:][DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered to OAR 340-30-450] OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISION 30 - DEPARTMENT OF ENVIRONMENTAL QUALITY

(3) Gasoline tanks with a capacity of 500 gallons or more, installed after January 1, 1970, shall be equipped with submersible filling device or other vapor emission control systems.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 050

Ships

340-<u>[28-055]30-470</u> While in those portions of the Willamette River and Columbia River which pass through or adjacent to Clackamas, Columbia, and Multnomah Counties, each ship shall minimize emissions from soot blowing and shall be subject to the emission standards and rules for visible emissions and particulate matter size.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 055

Upset Condition

340-[28-060]30-480 Emission of air contaminants in excess of applicable standards as a result of equipment breakdown shall[not be considered a violation of said standards provided the conditions of rule 340-21-075 are met] be subject to OAR 340-20-350 through 340-20-380.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, <u>Renumbered from 340-28-</u> <u>060</u>

Emission Standards - General

340-[28-065]30-490 Compliance with any specific emission standard in [these rules] this Division does not preclude required compliance with any other applicable emission standard or requirement contained in [any of the rules of the Department] OAR Chapter 340.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> <u>065</u>

Visible Air Contaminant Standards

340-[28-070]30-500 No person owning, operating, or maintaining non-fuel burning equipment sources of emissions shall discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than thirty (30) seconds in any one hour which is equal to or greater than 20 percent opacity.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> <u>070</u>

Particulate Matter Weight Standards 340-<u>[28-075]30-510</u>

- (1) The maximum allowable emission of particulate matter from any fuel burning equipment shall:
 - (a) Be a function of maximum heat input and shall be determined from Figure 1, except from existing fuel burning equipment utilizing wood residue, it shall be 0.2 grain, and from new fuel burning equipment utilizing wood residue, it shall be 0.1 grain for each standard cubic foot of exhaust gas, calculated to 12 percent carbon dioxide;
 - Not exceed Smoke Spot #2 for distillate fuel and #4 for residual fuel, measured by ASTM D2156-65,
 "Standard Method for Test for Smoke Density of the Flue Gases from Distillate Fuels"
- (2) The maximum allowable emission of particulate matter from any refuse burning equipment shall be a function of the maximum heat input from the refuse only and shall be determined from Figure 2.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule is available from the office of the Secretary of State or Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> <u>075</u>

Particulate Matter Size Standard

340-<u>[28-080]30-520</u> No person shall cause or permit the emission of any particulate matter which is larger than 250 microns in size provided such particulate matter does or will deposit upon the real property of another person.

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 080

Sulfur Dioxide Emission { Limitations } Standard

340-[28-085]30-530 No person shall cause or permit emission of sulfur dioxide in excess of 1000 ppm from any air contamination source as measured in accordance with the <u>Department's Source Test Manual</u>, except those persons burning fuel conforming to provisions of rules relating to the sulfur content of fuels. This rule is applicable to sources installed, constructed, or modified after October 1, 1970.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> <u>085</u>

Odors

340-[28-090]30-540

- (1) No person shall cause or permit the emission of odorous matter in such manner as to contribute to a condition of air pollution, or exceed:
 - (a) A scentometer No. 0 odor strength or equivalent dilution in residential and commercial areas.
 - (b) A scentometer No. 2 odor strength or equivalent dilution in all other land use areas.

Scentometer Readings: Scentometer No. and Concentration Range-No. of Thresholds, respectively:

0 ----- 1 to 2 1 ----- 2 to 8 2 ----- 8 to 32 3 ----- 32 to 128

(2) A violation of this rule shall have occurred when two measurements made within a period of one hour, separated by at least 15 minutes, off the property surrounding the air contaminant source exceeds the limitations of section (1).

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, <u>Renumbered from 340-28-</u> <u>090</u>

OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISION 30 - DEPARTMENT OF ENVIRONMENTAL QUALITY

SPECIFIC AIR POLLUTION CONTROL RULES FOR BENTON, LINN, MARION, POLK, AND YAMHILL COUNTIES

[Purposes and] Application

340-[29-001]30-600 [The rules in this Division]OAR 340-30-600 through 340-30-620 shall apply in Benton, Linn, Marion, Polk and Yamhill counties.[The purpose of these rules are to deal specifically with the air quality control needs of the five county area. These rules shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of these rules shall not, in any way, affect the applicability in the five county area of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cases of apparent duplication, the most stringent rule shall apply.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 109, f. 3-15-76, ef. 3-25-76; DEQ 11-1982, f. & ef. 6-18-82<u>, Renumbered from 340-29-001</u>

Odors

340-[29-011]30-610

(1) Unless otherwise regulated by specific odor regulation or standard, no person shall cause or permit the emission of odorous matter:

(a) in such a manner as to cause a public nuisance, or

- (b) that occurs for sufficient duration or frequency so that two measurements made within a period of one (1) hour, separated by at least 15 minutes, off the property surrounding the emission point, that is equal to or greater than a Scentometer No. 0 or equivalent dilutions in areas used for residential, recreational, educational, institutional, hotel, retail sales or other similar purposes.
- (2) In all land use areas other than those specified in subsection (1)(b) of this rule, release of odorous matter shall be prohibited if equal to or greater than a Scentometer No. 2 odor strength, or equivalent dilutions.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

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Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 11-1982, f. & ef. 6-18-82, <u>Renumbered from 340-29-011</u>

[Emission Restrictions --- Large]Particulate Matter<u>Size</u> <u>Standard</u>

340-[29-030]30-620 No person shall cause or permit the emission of any particulate matter which is larger than 250 microns in size provided such particulate matter does or will deposit upon real property of another person.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 11-1982, f. & ef. 6-18-82, <u>Renumbered from 340-29-030</u>

AIR POLLUTION CONTROL STANDARDS FOR AIR PURITY AND QUALITY

DIVISION 31

AMBIENT AIR QUALITY STANDARDS

[ED. NOTE: Administrative order DEQ 37 repealed previous rules 340-31-005 through 340-31-020 (DEQ 5 and 6).]

Definitions

340-31-005 As used in[these rules, unless otherwise required by context] OAR 340-31-005 through 340-31-055:

- (1) "Ambient air" means that portion of the atmosphere which surrounds the earth and is used for respiration by plants or animals including <u>[man]people</u>, but excluding the general volume of gases contained within any building or structure.
- "Ambient air monitoring site criteria" means the general probe siting specifications as set forth in Appendix E of 40 CFR 58.
- (3) "Approved method" means an analytical method for measuring air contaminant concentrations which are described or referenced in 40 CFR 50 and Appendices. These methods are approved by the Department of Environmental Quality.
- (4) "CFR" means Code of Federal Regulations which is published annually and updated daily by issues of the Federal Register. The CFR contains general and permanent rules promulgated by the executive departments and agencies of the federal government. References to the CFR are preceded by a "Title number" and followed by a "Part and Section number." For example: "40 CFR 50.7." The CFR referenced inf these rules<u>] OAR 340-31-005 through 340-31-055</u> are available for inspection at the Department of Environmental Quality.
- (5) "Oregon standard method" means any method of sampling and analyzing for an air contaminant approved by the Department of Environmental Quality. Oregon standard methods are kept on file by the Department of Environmental Quality.
- (6) "Ppm" means parts per million by volume. It is a dimensionless unit of measurement for gases which expresses the ratio of the volume of one component gas to the volume of the entire sample mixture of gases.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

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[**Publication:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88)

Purpose and Scope of Ambient Air Quality Standards 340-31-010

- (1) An ambient air quality standard is an established concentration, exposure time, and frequency of occurrence of an air contaminant or multiple contaminants in the ambient air which shall not be exceeded. The ambient air quality standards set forth in this division are designed to protect both public health and public welfare.
- Ambient air quality standards are not generally intended as (2) a means of determining the acceptability or unacceptability of emissions from specific sources of air contamination. More commonly, measured ambient air quality in comparison with ambient air quality standards is used as a criteria for determining the adequacy or effectiveness of emission standards for the aggregate of sources in a general area. However, in the case of a source or sources which are deemed to be singularly responsible for ambient air quality standards being exceeded in a particular locality, the violation of said standards shall be due cause for imposing emission standards more stringent than those generally applied to the class of sources involved. Similarly, proposed construction of new sources or expansions of existing sources, which may prevent or interfere with the attainment and maintenance of ambient air quality standards, shall be due cause for issuance of an order prohibiting such proposed construction, pursuant to ORS [449.712]468A.055 and [rule] OAR 340-20-030.
- (3) In adopting the ambient air quality standards in this division, the Environmental Quality Commission recognizes that one or more of the standards are currently being exceeded in certain parts of the state. It is hereby declared to be the policy of the Environmental Quality Commission to achieve, by application of a timely but orderly program of pollution abatement, full compliance with ambient air quality standards throughout the state at the earliest possible date[, but in no case later than July 1, 1975].

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[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72

Suspended Particulate Matter

340-31-015 Concentrations of suspended particulate matter in ambient air as measured by an approved method for total suspended particulate, (TSP), or by an approved method for the fraction of TSP which is equal to or less than 10 microns in aerodynamic diameter, (PM_{10}) , shall not exceed: (1) 60 micrograms of TSP per cubic meter of air as an annual

- (1) 60 micrograms of TSP per cubic meter of air as an annual geometric mean for any calendar year at any site.
- (2) 150 micrograms of TSP per cubic meter of air as a 24 hour average concentration more than once per year at any site.
- (3) 50 micrograms of PM₁₀ per cubic meter of air as an annual arithmetic mean. This standard is attained when the expected annual arithmetic mean concentration, as determined in accordance with Appendix K of 40 CFR 50 is less than or equal to 50 micrograms per cubic meter at any site.
- (4) 150 micrograms of PM₁₀ per cubic meter of air as a 24-hour average concentration for any calendar day. This standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms per cubic meter as determined in accordance with Appendix K of 40 CFR 50 is equal to or less than one at any site.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publication:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u>

Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88); AQ 9, f. & ef. 11/13/91

Sulfur Dioxide

340-31-020 Concentrations of sulfur dioxide in ambient air as measured by an approved method shall not exceed:

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- (1) 0.02 ppm as an annual arithmetic mean for any calendar year at any site.
- (2) 0.10 ppm as a 24-hour average concentration more than once per year at any site.
- (3) 0.50 ppm as a 3-hour average concentration more than once per year at any site.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88); AQ 9, f. & ef. 11/13/91

Carbon Monoxide

340-31-025 For comparison to the standard, averaged ambient concentrations of carbon monoxide shall be rounded the nearest integer in parts per million (ppm). Fractional parts of 0.5 or greater shall be rounded up. Concentrations of carbon monoxide in ambient air as measured by an approved method, shall not exceed:

- 9 ppm as an 8-hour average concentration more than once per year at any site.
- (2) 35 ppm as a 1-hour average concentration more than once per year at any site.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88); AQ 9, f. & ef. 11/13/91

Ozone

340-31-030 Concentrations of ozone in ambient air as measured by an approved method shall not exceed 0.12 ppm as a 1-hour average concentration. This standard is attained when, at any site the expected number of days per calendar year with maximum hourly concentrations greater than 0.12 ppm is equal to or less than one as determined by the method of Appendix H, 40 CFR 50.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

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[**Publication:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 15-1979, f. & ef. 6-22-79; DEQ 7-1980, f. & ef. 3-5-80; DEQ 4-1982, f. & ef. 1-29-82; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88); AQ 9, f. & ef. 11/13/91

Hydrocarbons

340-31-035 [DEQ 37, f. 2-15-72, ef. 3-1-72; Repealed by DEQ 8-1988, f. & cert. ef. 5-19-88, (corrected 9-30-88)]

Nitrogen Dioxide

340-31-040 Concentrations of nitrogen dioxide in ambient air as measured by an approved method shall not exceed 0.053 ppm as an annual arithmetic mean at any site.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88); AQ 9, f. & ef. 11/13/91

Particle Fallout

340-31-045 The particle fallout rate as measured by an Oregon standard method at a location approved by the Department of Environmental Quality shall not exceed:

- (1) 10 grams per square meter per month in an industrial area.
- (2) 5.0 grams per square meter per month in an industrial area if visual observations show a presence of wood waste or soot and the volatile fraction of the sample exceeds seventy percent (70%).
- (3) 5.0 grams per square meter per month in residential and commercial areas.
- (4) 3.5 grams per square meter per month in residential and commercial areas if visual observations show the presence of wood waste or soot and the volatile fraction of the sample exceeds seventy percent (70%).

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Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88)

Calcium Oxide (Lime Dust) 340-31-050

- (1) Concentrations of calcium oxide present as total suspended particulate, TSP, as measured by an approved method at a location approved by the Department of Environmental Quality, shall not exceed 20 micrograms per cubic meter in residential and commercial areas.
- (2) Concentrations of calcium oxide present as particle fallout as measured by an Oregon standard method at a location approved by the Department of Environmental Quality, shall not exceed 0.35 grams per square meter per month in residential and commercial areas.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88)

Ambient Air Quality Standard for Lead

340-31-055 The lead concentration in ambient air as measured by an approved method shall not exceed 1.5 micrograms per cubic meter as an arithmetic average concentration of all samples collected at any site during any one calendar quarter.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u>
Hist.: DEQ 85, f. 1-29-75, ef. 2-25-75; DEQ 1-1983, f. & ef.
1-21-83; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88);
AQ 9, f. & ef. 11/13/91

Prevention of Significant Deterioration

General

340-31-100

(1) The purpose of <u>f these rules</u>] OAR 340-31-100 through 340-31-<u>130</u> is to implement a program to prevent significant deterioration of air quality in the State of Oregon as required by the Federal Clean Air Act Amendments of 1977.

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(2) The Department will review the adequacy of the State Implementation Plan on a periodic basis and within 60 days of such time as information becomes available that an applicable increment is being violated. Any Plan revision resulting from the reviews will be subject to the opportunity for public hearing in accordance with procedures established in the Plan.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1979, f. & ef. 6-22-79

Definitions

340-31-105[For the purposes of these rules] As used in OAR 340-31-100 through 340-31-130:

- (1) "Federal Land Manager" means, with respect to any lands in the United States, the Secretary of the federal department with authority over such lands.
- (2) "Indian reservation" means any Federally recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.
- (3) "Indian Governing Body" means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1979, f. & ef. 6-22-79; DEQ 25-1981, f. & ef. 9-8-81

Ambient Air Increments

340-31-110

- (1) This rule defines significant deterioration. In areas designated as class I, II or III, emissions from new or modified sources shall be limited such that increases in pollutant concentration over the baseline concentration shall be limited to those set out in Table 1.
- (2) For any period other than an annual period, the applicable maximum allowable increase may be exceeded during one such period per year at any one location.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1979, f. & ef. 6-22-79; DEQ 8-1988, f. & cert. ef. 5-19-88 (corrected 9-30-88); AQ 20, f. & ef. 3-30-92 OREGON ADMINISTRATIVE RULES CHAPTER 340, DIVISION 31 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Ambient Air Ceilings

340-31-115 No concentration of a pollutant shall exceed:

- (1) The concentration permitted under the national secondary ambient air quality standard; or
- (2) The concentration permitted under the national primary ambient air quality standard; or
- (3) The concentration permitted under the state ambient air quality standard, whichever concentration is lowest for the pollutant for a period of exposure.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1979, f. & ef. 6-22-79

Restrictions on Area Classifications 340-31-120

- (1) All of the following areas which were in existence on August 7, 1977, shall be Class I areas and may not be redesignated:
 - (a) Mt. Hood Wilderness;
 - (b) Eagle Cap Wilderness;
 - (c) Hells Canyon Wilderness;
 - (d) Mt. Jefferson Wilderness;
 - (e) Mt. Washington Wilderness;
 - (f) Three Sisters Wilderness;
 - (g) Strawberry Mountain Wilderness;
 - (h) Diamond Peak Wilderness;
 - (i) Crater Lake National Park;
 - (j) Kalmiopsis Wilderness;
 - (k) Mountain Lake Wilderness;
 - (1) Gearhart Mountain Wilderness.
- (2) All other areas, in Oregon are initially designated Class II, but may be redesignated as provided in this[section] rule.
- (3) The following areas may be redesignated only as Class I or II:
 - (a) An area which as of August 7, 1977, exceeded 10,000 acres in size and was a national monument, a national primitive area, a national preserve, a national recreational area, a national wild and scenic river, a national wildlife refuge, a national lakeshore or seashore; and
 - (b) A national park or national wilderness area established after August 7, 1977, which exceeds 10,000 <u>facreasjacres</u> in size.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1979, f. & ef. 6-22-79

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Exclusions for Increment Consumption

340-31-125 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Redesignation

340-31-130

- (1) (a) All areas in Oregon, <u>{()</u>except as otherwise provided under<u>{ rule} OAR</u> 340-31-120{)], are designated Class II as of December 5, 1974.
 - (b) Redesignation, [(]except as otherwise precluded by rule] OAR 340-31-120[)], may be proposed by the Department or Indian Governing Bodies, as provided below, subject to approval by the EPA Administrator as a revision to the State Implementation Plan.
- (2) The Department may submit to the EPA Administrator a proposal to redesignate areas of the State Class I or Class II provided that:
 - (a) At least one public hearing has been held in accordance with procedures established in the Plan;
 - (b) Other States, Indian Governing Bodies, and Federal Land Managers whose lands may be affected by the proposed redesignation were notified at least 30 days prior to the public hearing;
 - (c) A discussion of the reasons for the proposed redesignation, including a satisfactory description and analysis of the health, environmental, economic, social and energy effects of the proposed redesignation, was prepared and made available for public inspection at least 30 days prior to the hearing and the notice announcing the hearing contained appropriate notification of the availability of such discussion;
 - (d) Prior to the issuance of notice respecting the redesignation of an area that includes any Federal lands, the Department has provided written notice to the appropriate Federal Land Manager and afforded adequate opportunity, [(]not in excess of 60 days[)] to confer with the Department respecting the redesignation and to submit written comments and

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recommendations. In redesignating any area with respect to which any Federal Land Manager had submitted written comments and recommendations, the Department shall have published a list of any inconsistency between such redesignation and such comments and recommendations [(]together with the reasons for making such redesignation against the recommendation of the Federal Land Manager[)]; and

- (e) The Department has proposed the redesignation after consultation with the elected leadership of local <u>[and other substate]</u>general purpose governments in the area covered by the proposed redesignation.
- (3) Any area other than an area to which <u>f rule</u> <u>OAR</u> 340-31-120 refers may be redesignated as Class III if:
 - (a) The redesignation would meet the requirements of section (2) of <u>rule</u> <u>OAR</u> 340-31-130;
 - (b) The redesignation, except any established by an Indian Governing Body, has been specifically approved by the Governor, after consultation with the appropriate committees of the legislature, if it is in session, or with the leadership of the legislature, if it is not in session, {() unless State law provides that the redesignation must be specifically approved by State legislation{)}, and if general purpose units of local government representing a majority of the residents of the area to be redesignated enact legislation or pass resolutions concurring in the redesignation;
 - (c) The redesignation would not cause, or contribute to, a concentration of any air pollutant which would exceed any maximum allowable increase permitted under the classification of any other area or any national ambient air quality standard; and
 - (d) Any permit application for any major stationary source or major modification, subject to review under section (1) of this rule, which could receive a permit under this section only if the area in question were redesignated as Class III, and any material submitted as part of that application, were available insofar as was practicable for public inspection prior to any public hearing on redesignation of the area as Class III.
- (4) Lands within the exterior boundaries of Indian Reservations may be redesignated only by the appropriate Indian Governing Body. The appropriate Indian Governing Body may submit to the EPA Administrator a proposal to redesignate areas Class I, Class II, or Class III: Provided, that:

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- (a) The Indian Governing Body has followed procedures equivalent to those required of the Department under section (2) and subsections (3)(c) and (d) of this rule; and
- (b) Such redesignation is proposed after consultation with the state(s) in which the Indian Reservation is located and which border the Indian Reservation.
- (5) The EPA Administrator shall disapprove, within 90 days of submission, a proposed redesignation of any area only if he finds, after notice and opportunity for public hearing, that such redesignation does not meet the procedural requirements of this paragraph or is inconsistent withf <u>rule] OAR</u> 340-31-120. If any such disapproval occurs, the classification of the area shall be that which was in effect prior to the redesignation which was disapproved.
- (6) If the EPA Administrator disapproves any proposed redesignation, the Department or Indian Governing Body, as appropriate, may resubmit the proposal after correcting the deficiencies noted by the EPA Administrator.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 18-1979, f. & ef. 6-22-79

Stack Heights 340-31-135 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

340-31-155 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Air Quality Models 340-31-160 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

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Monitoring

340-31-165 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Source Information

340-31-170 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Additional Impact Analyses

340-31-175 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Sources Impacting Federal Class I Areas - Additional Requirements:

340-31-180 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Public Participation

340-31-185 [DEQ 18-1979, f. & ef. 6-22-79 Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Source Obligation

340-31-190 [DEQ 18-1979, f. & ef. 6-22-79; Repealed by DEQ 25-1981, f. & ef. 9-8-81]

Stack Heights in Air Quality Modeling 340-31-195 [DEQ 14-1979, f. & ef. 6-22-79;

Repealed by DEQ 25-1981, f. & ef. 9-8-81]

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TABLE 1

(340-31-110) MAXIMUM ALLOWABLE INCREASE Micrograms per cubic meter

CLASS I

POLLUTANT
Particulate matter:
TSP, Annual geometric mean5
TSP, 24-hour maximum10
Sulfur dioxide:
Annual arithmetic mean 2
24-hour maximum 5
3-hour maximum25
Nitrogen dioxide:
Annual arithmetic mean
2.5

CLASS II

Particulate matter:
TSP, Annual geometric mean
TSP, 24-hour maximum37
Sulfur dioxide:
Annual arithmetic mean20
24-hour maximum91
3-hour maximum
512
Nitrogen dioxide:
Annual arithmetic mean25

CLASS III

Particulate matter:
TSP, Annual geometric mean37
TSP, 24-hour maximum75
Sulfur dioxide:
Annual arithmetic mean40
24-hour maximum182
3-hour maximum700
Nitrogen dioxide:
Annual arithmetic mean50

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DIVISION 33

LICENSING AND CERTIFICATION ASBESTOS REQUIREMENTS

Authority, Purpose, and Scope 340-33-010

- (1) Authority.[These rules are] This Division is promulgated in accordance with and under the authority of ORS 468[.893]A.745.
- (2) Purpose. The purpose of [these rules] this Division is to provide reasonable standards for:
 - (a) Training and licensing of asbestos abatement project contractors;
 - (b) Training and certification of asbestos abatement project supervisors and workers;
 - (c) Accreditation of providers of training of asbestos contractors, supervisors, and workers;
 - (d) Administration and enforcement of <u>these rules</u><u>this</u> <u>Division</u> by the Department.
- (3) Scope:
 - (a) [OAR 340-33-000 through 340-33-100]This Division is applicable to all work, including demolition, renovation, repair, construction, or maintenance activity of any public or private facility that involves the repair, enclosure, encapsulation, removal, salvage, handling, or disposal of any material which could potentially release asbestos fibers into the air; except as provided in subsections (b) and (c) of this section;
 - (b) [OAR 340-33-000 through 340-33-100 do]This Division does not apply to an asbestos abatement project which is exempt from OAR 340-25-466(1);
 - (c) <u>[OAR 340-33-010 through 340-33-100 do]This Division</u> <u>does</u> not apply to persons performing vehicle brake and clutch maintenance or repair;
 - (d) Full-scale asbestos abatement projects are differentiated from smaller projects. Small-scale asbestos abatement projects as defined by OAR 340-33-020(17) are limited by job size and include projects:
 - (A) Where the primary intent is to disturb the asbestos-containing material and prescribed work practices are used; and
 - (B) Where the primary intent is not to disturb the asbestos-containing material.

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(e) [OAR 340-33-000 through 340-33-100]This Division provides training, licensing, and certification standards for implementation of OAR 340-25-465 through -[496]469, Emission Standards and Procedural Requirements for Asbestos.

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 10-1988, f. 5-19-88, cert. ef. 5-19-88 (and corrected 6-3-88); AQ 13, f. & ef. 10-7-91

Definitions

340-33-020 As used in { these rules} this Division:

- (1) "Accredited" means a provider of asbestos abatement training courses is authorized by the Department to offer training courses that satisfy requirements for contractor licensing and worker training.
- (2) "Agent" means an individual who works on an asbestos abatement project for a contractor but is not an employee of the contractor.
- (3) "Asbestos" means the asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, actinolite and tremolite.
- "Asbestos abatement project" means any demolition, renovation, repair, construction or maintenance activity of any public or private facility that involves the repair, enclosure, encapsulation, removal, salvage, handling or disposal of any asbestos-containing material with the potential of releasing asbestos fibers from asbestos containing material into the air.
 NOTE: Emergency fire fighting is not an asbestos abatement project.
- (5) "Asbestos-containing material" means any material containing more than one percent asbestos by weight, including particulate asbestos material.
- (6) "Certified" means a worker has met the Department's training, experience, and/or quality control requirements and has a current certification card.
- (7) "Contractor" means a person that undertakes for compensation an asbestos abatement project for another person. [As used in this subsection, "compensation" means wages, salaries, commissions and any other form of remuneration paid to a person for personal services.]
- (8) "Commission" means the Environmental Quality Commission.
- (9) "Department" means the Department of Environmental Quality.
- (10) "Director" means the Director of the Department of Environmental Quality.

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- (11) "EPA" means the United States Environmental Protection Agency.
- (12) "Facility" means all or part of any public or private building, structure, installation, equipment, or vehicle or vessel, including but not limited to ships.
- (13) "Friable asbestos material" means any asbestos-containing material that hand pressure can crumble, pulverize or reduce to powder when dry.
- (14) "Full-scale asbestos abatement project" means any removal, renovation, encapsulation, repair or maintenance of any asbestos-containing material which could potentially release asbestos fibers into the air, and which is not classified as a small-scale project as defined by section (17) of this rule.
- (15) "Licensed" means a contracting entity has met the Department's training, experience, and/or quality control requirements to offer and perform asbestos abatement projects and has a current asbestos abatement contractor license. For purposes of this definition, a license is not a permit subject to Chapter 340 Division 14.
- (16 "Persons" means an individual, public or private corporation, nonprofit corporation, association, firm, partnership, joint venture, business trust, joint stock company, municipal corporation, political subdivision, the state and any agency of the state or any other entity, public or private, however organized.
- (17) "Small-scale asbestos abatement project" means small-scale, short-duration projects as defined by section (18) of this rule, and/or removal, renovation, encapsulation, repair, or maintenance procedures intended to prevent asbestos containing material from releasing fibers into the air and which:
 - Remove, encapsulate, repair or maintain less than 40 linear feet or 80 square feet of asbestos-containing material;
 - (b) Do not subdivide an otherwise full-scale asbestos abatement project into smaller sized units in order to avoid the requirements of<u>[these rules] this</u> <u>Division;</u>
 - (c) Utilize all practical worker isolation techniques and other control measures; and
 - (d) Do not result in worker exposure to an airborne concentration of asbestos in excess of 0.1 fibers per cubic centimeter of air calculated as an eight (8) hour time weighted average.

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- (18) "Small-scale, short-duration renovating and maintenance activity" means a task for which the removal of asbestos is not the primary objective of the job, including, but not limited to:
 - (a) Removal of quantities of asbestos-containing insulation on pipes;
 - (b) Removal of small quantities of asbestos-containing insulation on beams or above ceilings;
 - (c) Replacement of an asbestos-containing gasket on a valve;
 - (d) Installation or removal of a small section of drywall;
 - (e) Installation of electrical conduits through or proximate to asbestos-containing materials. Small-scale, activities shall be limited to no more than 40 linear feet or 80 square feet of asbestos containing material. An asbestos abatement activity that would otherwise qualify as a full-scale abatement project shall not be subdivided into smaller units in order to avoid the requirements off these-rules] this Division; or
 - (f) No such activity described above shall result in airborne asbestos concentrations above 0.1 fibers per cubic centimeter of air (calculated as an eight (8) hour time weighted average).
- (19) "Trained worker" means a person who has successfully completed specified training and can demonstrate knowledge of the health and safety aspects of working with asbestos.
- (20) "Worker" means an employee or agent of a contractor or facility owner or operator.

Stat. Auth.: ORS Ch. 468[.020] & 468[.893]A
Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88);
DEQ 4-1990, f. & cert. ef. 2-7-90 (and corrected 5-21-90); AQ 13,
f. & ef. 10-7-91

General Provisions

340-33-030

- (1) Persons engaged in the removal, encapsulation, repair, or enclosure of any asbestos-containing material which has the potential of releasing asbestos fibers into the air must be licensed or certified, unless exempted by OAR 340-33-010(3).
- (2) An owner or operator of a facility shall not allow any persons other than those employees of the facility owner or operator who are appropriately certified or a licensed asbestos abatement contractor to perform an asbestos

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abatement project in or on that facility. Facility owners and operators are not required to be licensed to perform asbestos abatement projects in or on their own facilities.

- Any contractor engaged in a full-scale asbestos abatement (3) project must be licensed by the Department under the provisions of OAR 340-33-040.
- Any person acting as the supervisor of any full-scale (4) asbestos abatement project must be certified by the Department as a Supervisor for Full-Scale Asbestos Abatement under the provisions of OAR 340-33-050.
- Any worker engaged in or working on any full-scale asbestos (5)abatement project must be certified by the Department as a Worker for Full-Scale Asbestos Abatement under the provisions of OAR 340-33-050, or as a Supervisor for Full-Scale Asbestos Abatement.
- Any contractor or worker engaged in any small-scale (6) asbestos abatement project but not licensed or certified to perform full-scale asbestos abatement projects, must be licensed or certified by the Department as a Small-Scale Asbestos Abatement Contractor or a Worker for Small-Scale Asbestos Abatement, respectively under the provisions of OAR 340-33-040 and 340-33-050.
- (7)Any provider of training which is intended to satisfy the licensing and certification training requirements of f these rules] this Division must be accredited by the Department under the provisions of OAR 340-33-060.
- (8) Any person licensed, certified, or accredited by the Department under the provisions of [these rules] this **Division** shall comply with the appropriate provisions of OAR 340-25-465 through 340-25-469 and FOAR 340-33-000 through 340-33-100]this Division and maintain a current address on file with the Department, or be subject to suspension or revocation of license, or certification, or accreditation.
- The Department may accept evidence of violations of [these (9) rules] this Division from representatives of other federal, state, or local agencies.
- (10)A regional air pollution authority which has been delegated authority under OAR 340-25-460(7) may inspect for and enforce against violations of licensing and certification regulations. A regional air pollution authority may not approve, deny, suspend or revoke a training provider accreditation, contractor license, or worker certification, but may refer violations to the Department and recommend denials, suspensions, or revocations.

(11) Any person who conducts an asbestos abatement project shall insure accessibility for the Department to perform inspections.

Stat. Auth.: ORS Ch. 468[.020] & 468[.893]A Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88); DEQ 4-1990, f. & cert. ef. 2-7-90 (and corrected 5-21-90); AQ 13, f. & ef. 10-7-91

Contractor Licensing

340-33-040

- (1) Contractors may be licensed to perform either of the following categories of asbestos abatement projects:
 - (a) Full-Scale Asbestos Abatement Contractors: All asbestos abatement projects, regardless of project size or duration; or
 - (b) Small-Scale Asbestos Abatement Con-tractor: Small-scale asbestos abatement projects.
- (2) Application for licenses shall be submitted on forms prescribed by the Department and shall be accompanied by:
 - (a) Documentation that the contractor, or contractor's employee representative, is certified at the appropriate level by the Department:
 - (A) Full-scale Asbestos Abatement Contractor license: Certified Supervisor for Full-Scale Asbestos Abatement;
 - (B) Small-Scale Asbestos Abatement Contractor: Certified Worker for Small-Scale Asbestos Abatement.
 - (b) Certification that the contractor has read and understands the applicable Oregon and federal rules and regulations on asbestos abatement and agrees to comply with the rules and regulations;
 - (c) A list of all certificates or licenses, issued to the contractor by any other jurisdiction, that have been suspended or revoked during the past one (1) year, and a list of any asbestos-related enforcement actions taken against the contractor during the past one (1) year;
 - (d) List any additional project supervisors for full-scale projects and their certification numbers as Supervisors for Full-Scale Asbestos Abatement;
 - (e) Summary of asbestos abatement projects conducted by the contractor during the past 12 months;
 - (f) A license application fee.

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- (3) The Department will review the application for completeness. If the application is incomplete, the Department shall notify the applicant in writing of the deficiencies.
- (4) The Department shall deny, in writing, a license to a contractor who has not satisfied the license application requirements.
- (5) The Department shall issue a license to the applicant after the license is approved.
- (6) The Department shall grant a license for a period of 12 months. Licenses may be extended during Department review of a renewal application.
- (7) Renewals:
 - (a) License renewals must be applied for in the same manner as is required for an initial license;
 - (b) For renewal, the contractor or employee representative must have completed at least the appropriate annual refresher course;
 - (c) The complete renewal application shall be submitted no later than 60 days prior to the expiration date.
- (8) The Department may suspend or revoke a license if the licensee:
 - (a) Fraudulently obtains or attempts to obtain a license;
 - (b) Fails at any time to satisfy the qualifications for a license or comply with the rules adopted by the Commission;
 - (c) Fails to meet any applicable state or federal standard relating to asbestos abatement;
 - (d) Permits an untrained or uncertified worker to work on an asbestos abatement project;
 - (e) Employs a worker who fails to comply with applicable state or federal rules or regulations relating to asbestos abatement.
- (9) A contractor who has a license revoked may reapply for a license after demonstrating to the Department that the cause of the revocation has been resolved.

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88)

Certification

340-33-050

- (1) Workers on asbestos abatement projects shall be certified at one or more of the following levels:
 - (a) Certified Supervisor for Full-Scale Asbestos Abatement;
 - (b) Certified Worker for Full-Scale Asbestos Abatement;
 - (c) Certified Worker for Small-Scale Asbestos Abatement.

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- (2) Application for Certification-General Requirements:
 - (a) Applications shall be submitted to the provider of the accredited training course within thirty (30) days of completion of the course;
 - (b) Applications shall be submitted on forms prescribed by the Department and shall be accompanied by the certification fee.
- (3) Application to be a Certified Supervisor for Full-Scale Asbestos Abatement shall include:
 - (a) Documentation that the applicant has successfully completed the Supervisor for Full-Scale Asbestos Abatement level training and examination as specified in OAR 340-33-070 and the Department guidance document; and
 - (b) Documentation that the applicant has been certified as a Worker for Full-Scale Asbestos Abatement and has at least three (3) months of full-scale asbestos abatement experience, including time on powered air purifying respirators and experience on at least five (5) separate asbestos abatement projects; or certified as worker for Full-Scale asbestos abatement and six (6) months of general construction, environmental or maintenance supervisory experience demonstrating skills to independently plan, organize and direct personnel in asbestos abatement project. The conducting an Department shall have the authority to determine if any applicant's experience satisfies those requirements.
- (4) Application to be a Certified Worker for Asbestos Abatement shall include:
 - (a) Documentation that the applicant to be a Certified Worker for Full-Scale Asbestos Abatement has successfully completed the Worker for Full-Scale 1 Asbestos Abatement level training and examination as specified in OAR 340-33-070 and the Department guidance document;
 - (b) Documentation that the applicant to be a Certified Worker for Small Scale Asbestos Abatement has successfully completed the Worker for Small-Scale Asbestos Abatement level training and examination as specified in OAR 340-33-070 and the Department guidance document.
- (5) Training course providers shall issue certification to an applicant who has fulfilled the requirements of certification.
- (6) Certification at all levels is valid for a period of twenty-four (24) months after the date of issue.

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- (7) Renewals:
 - (a) Certification renewals must be applied for in the same manner as application for original certification;
 - (b) To gain renewal of certification, a Worker for Full-Scale Asbestos Abatement and a Supervisor for Full-Scale Asbestos Abatement must complete the appropriate annual refresher course no sooner than nine (9) months and no later than twelve (12) months after the issuance date of the certificate, and again no sooner than three (3) months prior to the expiration date of the certificate. A worker may apply in writing to the Department for taking refresher training at some other time than as specified by this paragraph for work requirements or hardship. The reasons of Department shall accept or reject the application in writing;
 - (c) To gain renewal of certification, a Worker for Small-Scale Asbestos Abatement must comply with the regulations on refresher training which are in effect at the time of renewal. Completion of an accredited asbestos abatement review class may be required if the Environmental Quality Commission determines that there is a need to update the workers' training in order to meet new or changed conditions.
- (8) The Department may suspend or revoke a worker's certificate for failure to comply with any state or federal asbestos abatement rule or regulation.
- (9) If a certification is revoked, the worker may reapply for another initial certification only after 12 months from the revocation date.
- (10) A current worker certification card shall be readily available for inspection by the Department at each asbestos abatement project site for each worker conducting asbestos abatement activities on the site.

Stat. Auth.: ORS Ch. 468[.020] & 468[.893]<u>A</u> Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88); DEQ 9-1989(Temp), f. & cert. ef. 6-7-89; DEQ 4-1990, f. & cert. ef. 2-7-90 (and corrected 5-21-90); AQ 13, f. & ef. 10-7-91

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Training Provider Accreditation

340-33-060

- (1) General:
 - (a) Asbestos training courses required for licensing or certification under { these rules} this Division may be provided by any person;
 - (b) Any training provider offering training in Oregon to satisfy these certification and licensing requirements must be accredited by the Department;
 - (c) Each of the different training courses which are to be used to fulfill training requirements shall be individually accredited by the Department;
 - (d) The training provider must satisfactorily demonstrate through application and submission of course agenda, faculty resumes, training manuals, examination materials, equipment inventory, and performance during on-site course audits by Department representatives that the provider meets the minimum requirements established by the Department;
 - (e) The training course sponsor shall limit each class to a maximum of thirty participants unless granted an exception in writing by the Department. The student to instructor ratio for hands-on training shall be equal to or less than ten to one (10:1). To apply for an exception allowing class size to exceed 30, the course sponsor must submit the following information in writing to the Department for evaluation and approval prior to expanding the class size:
 - (A) The new class size limit;
 - (B) The teaching methods and techniques for training the proposed larger class;
 - (C) The protocol for conducting the written examination; and
 - (D) Justification for a larger class size.
 - (f) Course instructors must have academic credentials, demonstrated knowledge, prior training, or field experience in their respective training roles;
 - (g) The Department may require any accredited training provider to use examinations developed by the Department in lieu of the examinations offered by the training provider;
 - (h) The Department may require accredited training providers to pay a fee equivalent to reasonable travel expenses for one Department representative to audit any

accredited course which is not offered in the State of Oregon for compliance with[these regulations] this <u>Division</u>. This condition shall be an addition to the standard accreditation application fee.

- (2) Application for Accreditation:
 - (a) Application for accreditation shall be submitted to the Department in writing on forms provided by the Department and attachments. Such applications shall, as a minimum, contain the following information:
 - Name, address, telephone number of the firm, (A) individual(s), or sponsors conducting the including the name under which the course, the training provider intends to conduct training;
 - (B) The type of course(s) for which approval is requested;
 - (C) A detailed course outline showing topics covered and the amount of time given to each topic, including the hands-on skill training;
 - (D) A copy of the course manual, including all printed material to be distributed in the course;
 - description of (E) Α teaching methods to be employed, including description of audio-visual materials to be used. The Department may, at its discretion, request that copies of the materials provided for review. Any audio-visual be materials provided to the Department will be returned to the applicant;
 - (F) A description of the hands-on facility to be utilize including protocol for instruction, number of students to be accommodated, the number of instructors, and the amount of time for hands-on skill training;
 - (G) A description of the equipment that will be used during both classroom lectures and hands-on training;
 - (H) A list of all personnel involved in course preparation and presentation and a description of the background, special training and qualification of each, as well as the subject matter covered by each;
 - (I) A copy of each written examination to be given including the scoring methodology to be used in grading the examination; and a detailed statement about the development and validation of the examination;

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- (J) A list of the tuition or other fees required;
- (K) A sample of the certificate of completion and certification card label;
- (L) A description of the procedures and policies for re-examination of students who do not success-fully complete the training course examination;
- (M) A list of any states or accrediting systems that approve the training course;
- (N) A description of student evaluation methods (other than written examination to be used) associated with the hands-on skill training, as applicable;
- (0) A description of course evaluation methods used by students;
- (P) Any restriction on attendance such as class size, language, affiliation, and/or target audience of class;
- A description of the procedure for issuing (Q) replacement certification cards to workers who were issued certification а card or certification card label by the training provider within the previous 12 months and whose cards have been lost or destroyed;
- (R) Any additional information or documentation as may be required by the Department to evaluate the adequacy of the application;
- (S) Accreditation application fee.
- (b) Application for initial training course accreditation and course materials shall be submitted to the Department at least 45 days prior to the requested approval date;
- (c) Upon approval of an initial or refresher asbestos training course, the Department will issue a certificate of accreditation. The certificate is valid for one (1) year from the date of issuance;
- for one (1) year from the date of issuance;
 (d) Application for renewal of accreditation must follow the procedures described for the initial accreditation. In addition, course instructors must demonstrate that they have maintained proficiency in their instructional specialty and adult training methods during the 12 months prior to renewal.
- (3) Denial, Suspension or Revocation of Certificate of Accreditation. The Director may deny, revoke or suspend an application or current accreditation upon finding of sufficient cause. Applicants and certificate holders shall also be advised of the duration of suspension or revocation

and any conditions that must be met before certificate reinstatement. Applicants shall have the right to appeal the Director's determination through an administrative hearing in accordance with the provisions of OAR Chapter 340 Division 11. The following may be considered grounds for denial, revocation or suspension:

- False statements in the application, omission of (a) required documentation or the omission of information;
- (b) Failure to provide or maintain the standards of training required by these regulations this Division;
- Failure to provide minimum instruction required byf (C) these regulations] thid Division;
- (d) Failure to report to the Department any change in staff program which substantially deviates from the or information contained in the application;
- (e) Failure to comply with the administrative tasks and any other requirement of [these regulations] this Division.
- Training Provider Administrative Tasks. Accredited training (4) providers shall perform the following as a condition of accreditation:
 - (a) Administer the training course examination only to those students who successfully complete the training course;
 - (b) Issue a numbered certificate to each students who successfully passes the training course examination. Each certificate shall include the name of the student, name of the course completed, the dates of the course and the examination, name of the training provider, a unique certificate number, and a statement that the student passed the examination;
 - Issue a photo identification card to each student (C) renewal certification seeking initial or who successfully completes the training course examination and meets all other requirements for certification. The photo identification card shall meet the Department specifications;
 - (d) Place a label on the back of the photo identification card of each student who successfully completes a refresher training course and examination as required maintain certification. The label shall meet to Department specifications;
 - (e) Provide to the Department within ten (10) calendar days of the conclusion of each course offering the name, address, telephone number, Social Security Number, course title and dates given, attendance record, exam scores, and course evaluation form of each student attending the course and the certification number,

certification fee, and a photograph for each student certified. Record of the information shall be retained by the training provider for a period of three (3) years;

- (f) Obtain advance approval from the Department for any changes in the course instructional staff, content, training aids used, facility utilized or other matters which would alter the instruction from that described in the approval application;
- (g) Utilize and distribute as part of the course information or training aides furnished by the Department;
- (h) Provide the Department with a monthly class schedule at least one (1) week before the schedule begins. Notification shall include time and location of each course. Training providers shall notify the Department within three days whenever any unscheduled class is given;
- (i) Establish and maintain course records and documents relating to course accreditation application. Accredited training providers shall make records and documents available to the Department upon request. Training providers whose principle place of business is outside of the State of Oregon shall provide a copy of such records or documents within ten (10) business days of receipt of such a written request from the Department;
- (j) Notify the Department prior to issuing a replacement certification card;
- (k) Accredited training providers must have their current accreditation certificates at the location where they are conducting training.

Stat. Auth.: ORS Ch. 468[.020] & 468[.893]A Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88); DEQ 4-1990, f. & cert. ef. 2-7-90 (and corrected 5-21-90)

General Training Standards 340-33-070

(1) Courses of instruction required for certification shall be specific for each of the certificate categories and shall be in accordance with Department guidelines. The topics or subjects of instruction which a person must receive to meet the training requirements must be presented through a combination of lectures, demonstrations, and hands-on practice.

- (2)Courses requiring hands-on training must be presented in an environment suitable to permit participants to have actual experience performing tasks associated with asbestos abatement. Demonstrations not involving individual participation shall not substitute for hands-on training.
- (3)Persons seeking certification as a Supervisor for Full-Scale Asbestos Abatement shall successfully complete an accredited training course of at least four days as outlined in the DEQ Asbestos Training Guidance Document. The training course shall include lectures, demonstrations, at least six (6) hours of hands-on training, individual respirator fit testing, course review, and a written examination consisting of multiple choice questions. Successful completion of the training shall be demonstrated by achieving a passing score on the examination, course attendance, and full participation in the hands-on training.
- Any person seeking certification as a Worker for Full-Scale Asbestos Abatement shall successfully complete an accredited training course of at least three days duration as outlined in the DEQ Asbestos Training Guidance Document. The training course shall include lectures, demonstrations, at least six (6) hours of actual hands-on training, individual respirator fit testing, course review, and an examination of multiple choice questions. Successful completion of the course shall demonstrated by achieving a passing score on the be examination, course attendance, and full participation in the hands-on training. [The course shall adequately address the following topics:
- Any person seeking certification as a Worker for [(a)](5) Small-Scale Asbestos Abatement shall complete at least a two day approved training course as outlined in the DEQ Asbestos Training Guidance Document. The small-scale asbestos abatement worker course shall include lectures, demonstrations, at least six (6) hours of hands-on training, individual respirator fit testing, course review, and an examination of multiple choice questions. Successful completion of the course shall be demonstrated by achieving a passing score on examination, course attendance, and the full participation in the hands-on training [;]. [(b)](6)
 - Refresher training shall be at least one day duration for Certified Supervisors and Workers for Full-Scale Asbestos Abatement and at least three (3) hours duration for Certified Workers for Small-Scale Asbestos Abatement. The refresher courses shall include a review of key areas of initial training, updates, and an examination of multiple choice questions as outlined in

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(4)

the DEQ Asbestos Training Guidance Document. Successful completion of the course shall be demonstrated by achieving a passing score on the examination, course attendance, and full participation in any hands-on training [;].

[(c)]<u>(7)</u>

One training day shall consist of at least (7) seven hours, of actual classroom instruction and hands-on practice.

Stat. Auth.: ORS Ch. 468[.020] & 468[.893]A Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88); DEQ 4-1990, f. & cert. ef. 2-7-90 (and corrected 5-21-90)

Prior Training

340-33-080 Successful completion of an initial training course accredited by a governmental agency other than the Department may be used to satisfy the training and examination requirements of OAR 340-33-050 and 340-33-060 provided that all of the following conditions are met.

- (1) The Department determines that the course and examination requirements are equivalent to or exceed the requirements of OAR 340-33-050 and 340-33-060 and the asbestos training guidance document, for the level of certification sought. State and local requirements may vary.
- (2) For an applicant to qualify for a refresher course and certification, prior training must have occurred within two years of the application to the Department. Applicants must be in good standing in all states where they are certified.
- (3) The applicant who has received recognition from the Department for alternate initial training successfully completes an Oregon accredited refresher course and refresher course examination for the level of certification sought.

Stat. Auth.: ORS Ch. 468[.020] & 468[.893]A Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88); DEQ 4-1990, f. & cert. ef. 2-7-90 (and corrected 5-21-90)

Reciprocity

340-33-090 The Department may develop agreements with other jurisdictions for the purposes of establishing reciprocity in training, licensing, <u>[and/]</u>or certification if the Department finds that <u>[the training, licensing and/or certification]such</u> standards of the other jurisdiction are at least as stringent as those required by<u>f these rules] this Division</u>.

Stat. Auth.: ORS Ch. 468 <u>& 468A</u> Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88)

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 33 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Fees

340-33-100

- (1) Fees shall be assessed to provide revenues to operate the asbestos control program. Fees are assessed for the following:
 - (a) Contractor Licenses;
 - (b) Worker Certifications;
 - (c) Training Provider Accreditation;
 - (d) Asbestos Abatement Project Notifications.
- (2) Contractors shall pay a non-refundable license application fee of:
 - \$300 for a one year Full-Scale Asbestos Abatement Contractor license;
 - (b) \$200 for a one year Small-Scale Asbestos Abatement Contractor license.
- (3) Workers shall pay a non-refundable certification fee of:
 - (a) \$100 for a two year certification as a certified Supervisor for Full-Scale Asbestos Abatement;
 - (b) \$80 for a two year certification as a Certified Worker for Full-Scale Asbestos Abatement;
 - (c) \$50 for a two year certification as a Certified Worker for Small-Scale Asbestos Abatement.
- (4) Training Providers shall pay a non-refundable accreditation application fee of:
 - (a) \$1000 for a one year accreditation to provide a course for training supervisors on Full-Scale projects;
 - (b) \$800 for a one year accreditation to provide a course for training workers on Full-Scale projects;
 - (c) \$500 for a one year accreditation to provide a course for training workers on Small-Scale projects;
 - (d) \$250 for a one year accreditation to provide a course for refresher training for any level of certification.
- (5) Requests for waiver of fees shall be made in writing to the Director, on a case-by-case basis, and be based upon financial hardship. Applicants for waivers must describe the reason for the request and certify financial hardship. The Director may waive part or all of a fee.

NOTE: The requirements and jurisdiction of the Department of Insurance and Finance, Oregon Occupational Safety and Health Division and any other state agency are not affected by <u>these</u> rules<u>} this Division</u>.

Stat. Auth.: ORS Ch. 468[.020] & 468[.893]A Hist.: DEQ 10-1988, f. & cert ef. 5-19-88 (and corrected 6-3-88); DEQ 4-1990, f. & cert. ef. 2-7-90 (and corrected 5-21-90); AQ 13, f. & ef. 10-7-91

DIVISION 34

RESIDENTIAL WOODHEATING

Purpose

340-34-001 [The Clean Air Act amendments of 1990 require that specific measures be undertaken in a nonattainment area to attain the national primary ambient air quality standard by the applicable attainment date.]The purpose of [these rules] this Division is to establish [control strategy and contingency measures for residential woodheating in PM₁₀ nonattainment areas, and to address residential woodburning curtailment under the statewide emergency action plan] rules to control, reduce and prevent air pollution caused by residential woodheating emissions.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Definitions

340-34-005 Unless otherwise required by context, as used in this Division:

- (1) "Accredited" means a woodstove testing laboratory holds a valid certificate of accreditation issued by the Department or the U.S. Environmental Protection Agency.
- (2) "Administrator" means the administrator of the Environmental Protection Agency or the administrator's authorized representative.
- (3) "Antique Woodstove" means a woodstove built before 1940 that has an ornate construction and a current market value substantially higher than a common woodstove manufactured in the same time period.
- (4) "Audit test" means a test conducted by the Department to verify a laboratory's certification test results.
- (5) "Commission" means the Environmental Quality Commission.
- (6) "Consumer" means any person who buys a woodstove for personal use.
- (7) "Cookstove" means an indoor woodburning appliance the design and primary purpose of which is to cook food.
- (8) "Curtailment" means a period during which woodburning is prohibited due to the existence of an air stagnation condition.

- (9) "Dealer" means any person engaged in selling woodstoves to retailers or other dealers for resale. A dealer which is also an Oregon retailer shall be considered to be only a retailer for purposes of [these rules] this Division. "Destroy" means to demolish to a such an extent that (10)restoration is impossible. (11)"Department" means the Oregon Department of Environmental Ouality. (12)"Director" means the Director of the Department or the Director's authorized delegates. "EPA" means the United States Environmental Protection (13)Agency. "Federal Regulations" means Volume 40 CFR Part 60, Subpart (14)AAA, Sections 60.530 through 60.539b, dated July 1, 1990. (15)"Fireplace" means a framed opening made in a chimney to hold an open fire. (16)"Heat output" means the heat output (Btu/hour) of a woodstove during one test run, measured under test conditions prescribed by OAR 340-21-120. "Manufacturer" means any person who imports a woodstove, (17)constructs a woodstove or parts for woodstoves. (18)"New Woodstove" means any woodstove that has not been sold, bargained, exchanged, given away or has not had its ownership transferred from the person who first acquired the woodstove from the manufacturer's dealer or agency, and has not been so used to have become what is commonly known as "second hand" within the ordinary meaning of that term. (19) "Overall efficiency (%) over the range of heat outputs tested" means the weighted average combustion efficiency (%) multiplied by the weighted average heat transfer efficiency (%) measured under test conditions (range of heat outputs) and calculated according to specific procedures prescribed by OAR [340-21-120(1)]340-34-055(1). This definition is applicable to the Stack Loss Methodology. For the Calorimeter Room Method, the weighted average overall efficiency means the useful heat output released to the room, divided by the total heat potential
- (20) "Pelletstove" means a woodburning heating appliance which uses wood pellets as its primary source of fuel.
- (21) "Retailer" means any person engaged in the sale of woodstoves directly to consumers.

of the fuel consumed.

(22) "Used Woodstove" means any woodstove that has been sold bargained, exchanged, given away, or has had its ownership transferred from a retailer, manufacturer's dealer or agent to a consumer.

- (23) "Weighted average" means the weighted average of the test results to the distribution of home heating needs as prescribed in the <u>[F]f</u>ederal regulations, **40 CFR Part** [40]60, Subpart AAA.
- (24) "Woodstove"[/] or "Woodheater" means an enclosed, woodburning appliance capable of and intended for space heating and domestic water heating that meets all of the following criteria:
 - (a) An air-to-fuel ratio in the combustion chamber averaging less than [35]30-to-1 as determined by the test procedure prescribed in federal regulations **40** CFR part 60, subpart AAA, §60.534 performed at an accredited laboratory;
 - (b) A usable firebox volume of less than 20 cubic feet,
 - (c) A minimum burn rate less than 5 kg/hr as determined by the test procedure prescribed in federal regulations 40 CFR part 60, subpart AAA, §60.534 performed at an accredited laboratory; and
 - (d) A maximum weight of 800 kg. In determining the weight of an appliance for these purposes, fixtures and devices that are normally sold separately, such as flue pipe, chimney, <u>heat distribution ducting</u>, and masonry components that are not an integral part of the appliance or heat distribution ducting, shall not be included.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Requirements for Sale of Woodstoves 340-34-010

 $(1)\{\cdot\}$

(a)

- Requirements applicable to the sale of new woodstoves
- [On and after July 1, 1990 a]No person shall[not] advertise to sell, offer to sell, or sell a new woodstove in Oregon unless:
 - (A) The woodstove has been tested, certified and labeled for emission performance in accordance with criteria, emission standards, and

procedures specified in the federal regulations, 40 CFR Part 60, Subpart AAA; and

- (B) The woodstove has been tested for heating efficiency and certified by the Department in accordance with criteria and procedures in OAR 340-34-055; and
- (C) The woodstove is labelled for emission performance and heating efficiency as specified in OAR 340-34-070; provided, however, that section (1) of this rule shall not apply to any sale from any manufacturer or dealer; to any Oregon manufacturer or dealer; or to any outof-state manufacturer, dealer or retailer; or to any offer or advertisement for such sale directed only to such a manufacturer, dealer or out-of-state retailer.
- (b) No manufacturer, dealer, retailer or individual shall alter the permanent certification label in any way from the label approved by the Administrator pursuant to [F]federal Regulations, 40 CFR part 60, subpart AAA, § 60.538[(i)].
- (c) No manufacturer, dealer or retailer shall alter the removable label in any way from the label approved by the Department pursuant to OAR 340-34-080.
- (2) [.] Requirements applicable for the sale of used woodstoves. A person shall not advertise to sell, offer to sell, or sell a used woodstove unless:
 - (a) The woodstove was certified by the Department on or after July 1, 1986, in accordance with emission performance and heating efficiency criteria applicable at the time of certification;
 - (b) The woodstove has permanently attached an emission performance label authorized by the Department or the EPA.
- (3) Section (2) of this rule concerning used woodstoves that have not been certified shall not apply to the following:
 - (a) the selling by a consumer of fanja used woodstove that has not been certified by the Department to a person in the business of reusing, reclaiming or recycling scrap metal to be destroyed or used as scrap metal;
 - (b) the remittance of <u>[an]a</u> used woodstove that has not been certified by the Department by a consumer to a retailer of certified woodstoves for the purpose of receiving a reduction in price on a new certified woodstove.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Exemptions

340-34-015

- (1) A pelletstove is exempt from the following requirements:
 - (a) OAR 340-34-050 through <u>[340-34-110]340-34-115</u>, woodstove certification, and OAR 340-34-010[(1)], requirements applicable to the sale of[new] woodstoves, provided the manufacturer holds a valid letter of exemption from the Department, or furnishes the Department with a valid letter of exemption from the Department, or furnishes the Administrator, which verifies that the pelletstove exceeds an air to fuel ratio in the combustion chamber of greater than 35-to-1 as determined in accordance with criteria and procedures of EPA Method 28A as set forth in the federal regulations, 40 CFR Part 60, Subpart AAA;
 - (b) OAR 340-34-010(2), requirements applicable to the sale of used woodstoves;
 - (c) OAR 340-34-150 through 340-34-175, woodburning curtailment; and
 - (d) OAR 340-34-200 through 340-34-215, woodstove requirements applicable after December 31, 1994.
- An enclosed woodheating appliance capable of and intended for residential space heating or domestic water heating is exempt from OAR 340-34-010, requirements applicable to the sale of woodstoves, and OAR 340-34-050 through 340-34-115, woodstove certification, provided the manufacturer holds a valid letter of exemption from the Department, or furnishes the Department with a valid letter of exemption from the Administrator, which verifies that the appliance is not a woodstove or woodheater as defined in OAR 340-34-005(24).
 (3) [(2)] An antique stove is exempt from the requirements of: (a) OAR 340-34-010(2), requirements applicable to the
 - sale of used woodstoves; and
 (b) OAR 340-34-200 through 340-34-215, woodstove requirements applicable after December 31, 1994.

A cookstove is exempt from the requirements of <u>(4) [(3)] </u> Chapter 340, Division 34, except for OAR 340-34-150 through 340-34-175, woodburning curtailment. A woodburning fireplace, woodstove or appliance <u>(5)</u> [(4)] operated within a household classified to be at less than or equal to 125 percent of the federal poverty level is exempt from the requirement of OAR 340-34-150 through 340-34-175, woodburning curtailment. The federal poverty level is published in the Federal Register, Volume 56, Number 34, February 20, 1990, page 6859, Department of Health and Human Services. A woodstove operated in a residence that is equipped <u>(6) [(5)]</u> solely with woodheat is exempt from the requirements of OAR 340-34-150 through 340-34-175, woodburning curtailment.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Civil Penalties

340-34-020 Violations of Chapter 340, Division 34 are subject to Chapter 340, Division 12, Enforcement Procedures and Civil Penalties.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Woodstove Certification Program

<u>Applicability</u>

<u>340-34-045</u>

(1) OAR 340-34-045 through 340-34-115 shall apply to any woodstove or woodheater.

(2) The following woodheating appliances are not subject to OAR 340-34-045 through 340-34-115: (a) Open masonary fireplaces; (b) Boilers; (c) Furnaces; and

(d) Cookstoves.

Emissions Performance Standards and Certification 340-34-050

- (1) Unless exempted for not regulated as an affected facility under §60.530 of the federal regulation, 40 CFR Part 60, Subpart AAA]by the Department under 340-34-115, new woodstoves advertised for sale, offered for sale or sold in Oregon between July 1, 1990 and June 30, 1992 shall be certified by the Administrator pursuant to federal regulation as complying with the particulate matter emission limits specified in the federal regulations, 40 CFR Part 60, Subpart AAA, §60.532(a).
- (2) Unless exempted for not regulated as an affected facility under §60.530 of the federal regulation, 40 CFR Part 60, Subpart AAA]by the Department under 340-34-015, new woodstoves advertised for sale, offered for sale, or sold in Oregon on or after July 1, 1992 shall be certified by the Administrator pursuant to federal regulation as complying with the particulate matter emission limits specified in the federal regulations, 40 CFR Part 40, Subpart AAA, §60.532(b).

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>[183.341 &]</u>468<u>[.370] & 468A</u> Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Efficiency Testing Criteria and Procedures 340-34-055

(1) To be considered eligible for certification, a woodstove must be tested for efficiency in strict conformance with criteria and procedures contained in the document Standard Method for Measuring the Emissions and Efficiencies of Residential Woodstoves dated June 8, 1984, and incorporated

herein by reference and on file at the Department, or in strict conformance with criteria and procedures in federal regulations, **40 CFR 60, Appendix J**, if found to be equivalent by the Department.

- (2) All testing for certification purposes, using the Standard Method for Measuring the Emissions and Efficiencies of Residential Woodstoves, shall be conducted by a stove testing laboratory accredited in accordance with procedures specified in OAR 340-34-085.
- (3) The Department may permit minor changes in the testing criteria and procedures specified in section (2) of this rule which the Department believes does not affect its accuracy providing such changes are approved in writing by the Department prior to the actual conducting of such tests.
- (4) All testing for certification purposes using the federal regulation, 40 CFR 60, Appendix J, if found to be equivalent by the Department, shall be conducted by an accredited laboratory.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

General Certification Procedures 340-34-060

- (1) Any woodstove manufacturer, or dealer, wishing to obtain certification of a woodstove shall file an application with the Department.
- (2) An application for certification must include:
 - (a) One complete copy of the EPA application and attachments as specified in the federal regulations,
 40 CFR Part 60, Subpart AAA, §60.533 (a,b,c,d);
 - (b) A copy of the valid Certificate of Compliance issued by the Administrator, pursuant to federal regulation, 40 CFR Part 60, Subpart AAA, §60.533;
 - (c) All test data and support documentation showing that the woodstove has been tested for efficiency in accordance with OAR 340-34-055;

- (d) A non-refundable certification fee, payable to the Department at the time the application is submitted to the Department, is required for each stove model seeking certification. The fee is \$500 for each model submitted by the manufacturer.
- (3) The Department will promptly review an application for certification and:
 - (a) Notify the applicant in writing within 30 days of receipt of the applications, of any deficiencies in the applications that cause the application to be incomplete;
 - (b) Notify the applicant within 60 days of receipt of a completed application whether certification is granted or denied pursuant to sections (4) and (7) of this rule.
- (4) When all the preceding requirements have been met, the Department will issue or deny a certification document to the manufacturer or dealer for the specified woodstove.
- (5) If the Department grants certification, the certification status shall be effective for no longer <u>{that}than</u> five years unless extended or terminated by rule or order.
- (6) An application for a new document of certification shall be made by submitting a completed application including retests and fees at least 60 days prior to expiration of certification. The Department may waive the retest and fees if the applicant demonstrates the previous evidence used to certify the woodstove has not changed and remains reliable and applicable.
- (7) If the Department denies certification of a woodstove, the Department will notify the manufacturer or dealer in writing of the opportunity for a hearing pursuant to OAR Chapter 340, Division 11.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Changes in Woodstove Design

340-34-065 Certification of woodstoves shall be valid for only the specific model, design, plans and specifications which were originally submitted, tested and approved for certification. Any modification to the model, design, plans or specifications shall cause the certification to be ineffective and any so modified woodstoves to be uncertified, unless prior to making such modification the certification holder submits the proposed modification to the Administrator for approval, and the Administrator approves it.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Labelling Requirements

340-34-070 Woodstoves which must be labelled pursuant to OAR 340-34-010 shall have affixed to them:

- A permanent label, in accordance with federal regulations,
 40 CFR [60, Subpart AAA,]§60.536.
- (2) A point-of-sale removable label:
 - (a) [If the]For woodstoves [was]tested for efficiency in conformance with criteria and procedures described in 340-34-055 and contained in the document Standard Method for Measuring the Emissions and Efficiencies of Residential Woodstoves, the label [must]shall be approved by the Department, verify certification and show the heating efficiency [range] of the appliance. The label shall be affixed to the appliance at the point-of-sale near the front and top of the stove and remain affixed until sold and delivered to the consumer;
 - (b) If the woodstove was tested for efficiency in conformance with criteria and procedures in federal regulations, 40 CFR <u>Part</u> 60, Appendix J, the point-of-sale label shall show the measured efficiency in accordance with the requirements in federal regulations, 40 CFR [60, Subpart AAA,] §60.536.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. <u>f183.341 &]</u>468<u>[.370] & 468A</u> Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Removable Label

340-34-075

- (1) For a woodstove with a heating efficiency measured in accordance with OAR 340-34-055, an additional point-of-sale removable label shall be affixed and shall contain the following information:
 - (a) "Oregon Tested Efficiency (Ave.) _____%", weighted average of tested values;
 - (b) Manufacturer of appliance;
 - (c) Model of appliance;
 - (d) Design number of model;
 - (e) A statement acknowledging EPA emission certification meets Oregon emission requirements;
 - (f) The statement "Performance may vary from test values depending on actual home operating conditions".
- (2) The label shall be visibly located on the appliance when the appliance is available for inspection by consumers.
- (3) This label may not be combined with any other label or with other information.
- (4) The label shall be attached to the appliance in such a way that it can be easily removed by the consumer upon purchase. For instance, the label may be attached by adhesive, wire, or string.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Label Approval

340-34-080

- (1) Removable label:
 - (a) For a woodstove with a heating efficiency measured in accordance with OAR 340-34-055, the Department will provide the manufacturer or dealer, at the time of certification with:

- (A) A copy of the standardized printed removable label, with all printing specifications; and
- (B) The specific information that shall be printed in the spaces on the label by the manufacturer.
- (b) The manufacturer or dealer shall submit to the Department for review:
 - (A) A proof copy of the proposed label with the required information printed on the labels;
 - (B) The method of attaching the removable label to the woodstove;
 - (C) The name, telephone number, and address of the label printer.
- (c) Within 14 days of receipt of all the information required in subsection (b) of this section, the Department will approve or deny use of the proposed label.
- (2) The manufacturer shall submit to the Department three final printed permanent, and three final printed removable labels within one month of receiving the labels from the printer.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>[183.341-&-]</u>468<u>[.370] & 468A</u> Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Laboratory Accreditation Requirements

340-34-085 A laboratory submitting test data pursuant to requirements in this rule shall have a valid certificate of accreditation issued by the Department. A laboratory may initiate application for an accreditation certificate by submitting written documentation to the Department that accreditation criteria contained in OAR 340-34-090 are met. In addition, the laboratory must demonstrate stove testing proficiency pursuant to OAR 340-34-095, in order to qualify for accreditation.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 11-1984, f. & ef. 6-26-84; AQ 7, f. & ef. 11/13/91

Accreditation Criteria

340-34-090 All laboratories shall meet the following criteria and standards at the time of application and shall continue to meet these criteria as a condition of maintaining accreditation.

- (1) Hold a valid certificate of accreditation for emission testing issued by the Administrator.
- (2) Shall hold a valid certificate of efficiency accreditation issued by the Department. To be eligible for efficiency accreditation the laboratory must demonstrate to the Department:
 - (a) Conformance with the criteria and procedures contained in the document Standard Method for Measuring the Emission and Efficiency of Residential Woodstoves and maintain an efficiency computer program that produces results comparable to the Department's using a standard data set provided by the Department; or
 - (b) Conformance and proficiency with the criteria and procedures in federal regulation, 40 CFR 60, Appendix J, if found to be equivalent by the Department.
- (3) Shall meet all of the requirements as prescribed by federal regulation, 40 CFR Part 60, Subpart AAA, Section 60.535.
- (4) Neither the laboratory owners or business affiliates shall discriminate in management or business practices against any person or business because of race, creed, color, religion, sex, age, or national origin. In addition, neither the laboratory nor its owners or operators shall be certified by any association or members of any association that discriminates in management or business practices against any person or business because of race, creed, color, religion, sex, age, or national origin.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Application for Laboratory Efficiency Accreditation 340-34-095

- (1) A laboratory applying for efficiency accreditation shall state in writing and demonstrate by providing documentation, that they comply with the criteria and standards in OAR 340-34-090 at the time of application, and how they will continue to meet the criteria and standards on an on-going basis.
- (2) The laboratory shall notify the Department in writing within 30 calendar days should it become unable to conform to any of the criteria and standards in OAR 340-34-090.
- (3) Deficiency in the application will be identified by the Department in writing, and must be resolved by the laboratory before further processing occurs.
- (4) The application will not be considered complete [for further processing]until the laboratory certifies in writing that the <u>application</u> deficiencies have been resolved. The application will be considered withdrawn if the applicant fails to [certify resolution]resolve to the Department's satisfaction the application deficiencies within 90 days of postmark of notification by the Department.
- (5) When the <u>Department determines that the</u> application is <u>complete and</u> approvable, the Department <u>fwillfshall</u> inform the laboratory in writing and <u>may</u> schedule an on-site laboratory inspection.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

On-Site Laboratory Inspection and Stove Testing Proficiency Demonstration

340-34-100

- (1) An on-site inspection may be conducted by a Department representative after all laboratory information required by OAR 340-34-090, has been provided by the laboratory, and reviewed and approved by the Department. The on-site visit may be conducted when a laboratory initially applies for accreditation[or], when the laboratory reapplies for a new certificate of accreditation <u>or at such time as is deemed</u> <u>necessary by the Department</u>.
- (2) During the on-site inspection, the Department representative will:

- Observe the Stove Testing Proficiency Demonstration (a) specified in OAR 340-34-095;
- Meet with management and supervisory personnel (b) responsible for the testing activities for which the laboratory is seeking accreditation;
- Review representative samples of laboratory records. (C) To facilitate examination of personnel competency records, the laboratory should prepare a list of names of staff members who perform the tests;
- Observe test demonstrations and talk with laboratory (d) personnel to assure their understanding of the test procedures. Refer to OAR 340-34-055 and 340-34-095;
- Physically examine selected equipment and apparatus; (e)
- At the conclusion of the on-site visit, the (f) Department may discuss observations with responsible members of the laboratory management pointing out any deficiencies uncovered.
- In order to be accredited and as a part of each on-site laboratory inspection, each laboratory may be required to demonstrate to the Department's representative its ability to successfully and proficiently conduct and report a woodstove emission and efficiency test. Each laboratory may:
 - Be required to test one woodstove provided by the (a) Department. Costs for all stove shipping, catalytic combustors, or other necessary parts will be paid by the laboratory;
 - Be required to test the stove in accordance with (b) testing criteria and procedures specified in OAR 340-34-155;
 - Conduct the actual efficiency testing in the presence (C) of a Department observer;
 - Submit all test data, observations and test results (d) to the Department for technical evaluations.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90, cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

Accreditation Application Deficiency, Notification and Resolution 340-34-105

Any deficiencies noted during the on-site inspection and/or (1)in the test data and test results submitted from the stove

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(3)

testing proficiency demonstration will be specifically identified in writing and mailed to the laboratory within 30 days of the on-site visit.

- (2) The laboratory must respond in writing within 30 days of the date of postmark of the notification by the Department and provide documentation that the specified deficiencies have been corrected. All deficiencies must be corrected prior to accreditation being granted.
- (3) Deficiencies noted for corrective action will be subject to thorough review and verification during subsequent on-site visits and technical evaluations.
- (4) Any deficiencies in the test data and/or results may result in subsequent proficiency tests being required at the laboratory with a Department representative present.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 11-1984, f. & ef. 6-26-84; AQ 7, f. & ef. 11/13/91

Final Department Administrative Review and Certificate of Accreditation

340-34-110

- (1) When all application material has been received, including the on-site inspection and the stove testing proficiency evaluation, and there has been time for all deficiencies to be resolved, the Department will grant or deny accreditation.
- (2) Accreditation can be denied for failure to comply with or fulfill any of the criteria in OAR 340-34-090, 340-34-095, and 340-34-100.
- When accreditation is approved, a certificate of accreditation will be issued to the laboratory. Accreditation will be granted for a period of five years (60 months) subject to rule change or revocation for cause, pursuant to OAR 340, Division 11.
- (4) A certificate of accreditation is not renewable. A holder may obtain a new certificate of accreditation by completing the application procedure in OAR 340-34-095, and demonstrating compliance with OAR 340-34-090 and 340-34-100.
- (5) The Department may select and audit test one stove tested by the laboratory during the accreditation period to verify certification test results. Any discrepancies noted will be communicated to the laboratory by certified or registered

mail. The laboratory must respond in writing within 30 days of postmark of notification and provide documentation or certification by an authorized member of the laboratory management that the specified discrepancies have been corrected or the laboratory may be subject to civil penalties or revocation of accreditation.

(6) A laboratory may voluntarily terminate its accreditation by written request at any time. The certificate of accreditation must be returned with the request.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. [183.341 &]468[.370] & 468A
Hist.: DEQ 11-1984, f. & ef. 6-26-84; DEQ 5-1990, f. 3-7-90,
cert. ef. 7-1-90; AQ 7, f. & ef. 11/13/91

[Civil Penaltics,]Revocation, and Appeals 340-34-115

- (1) Violation of OAR 340-34-050 through OAR 340-34-110 shall constitute cause to revoke the manufacturer's woodstove certification or laboratory's certificate of laboratory accreditation.
- (2) Certification of a woodstove may be revoked if the woodstove was tested at a laboratory that was found to be in violation of accreditation criteria and rules at the time the woodstove was tested for certification.
- (3) When certification or accreditation has been revoked, the holder shall return the certification or accreditation document to the Department and cease to use mention of Department certification or accreditation of the stove model or laboratory on any of its test reports, correspondence or advertising.
- (4) <u>Appeal of the revocation of [S]s</u>tove certification and lab accreditation <u>frevocation</u>]shall be <u>fhandled as contested</u> cases <u>fconducted</u> pursuant to OAR <u>fChapter 1340</u>, <u>Division</u> <u>f-11-097 through 340-11-142</u>.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468<u>& 468A</u> Hist.: DEQ 11-1984, f. & ef. 6-26-84; AQ 7, f. & ef. 11/13/91

WOODBURNING CURTAILMENT

Applicability

340-34-150 OAR 340-34-150 through 340-34-175 shall apply to any portion of the state:

- (1) Where the Department has determined that, under the requirements of the Clean Air Act, an enforceable woodburning curtailment program is required as an emission reduction control strategy for a PM₁₀ nonattainment area and the Department has determined that the local government or regional authority has failed to adopt or adequately implement the required woodburning curtailment program. In determining whether a local government or regional authority has failed to adopt or implement a curtailment program, the Department shall determine if a local government or regional authority:
 - (a) has adopted an ordinance that requires the curtailment of residential wood heating at forecasted air pollution levels which are consistent with the curtailment conditions and requirements specified in OAR 340-34-155(1) and 340-34-160(1) and (2);
 - (b) is issuing on a daily basis curtailment advisories to the public consistent with OAR 340-34-165; and
 - (c) is conducting surveillance for compliance and is taking adequate enforcement actions consistent with OAR 340-34-170.
- (2) Where the Department has determined that, under the requirements of the Clean Air Act, an enforceable woodburning curtailment program is required as an emission abatement strategy to respond to an air pollution emergency.
- (3) That is classified as a nonattainment area for PM₁₀ that does not achieve attainment by December 31, 1994, and which does not have an enforceable curtailment program that satisfies the criteria in sections (1)(a), (b) and (c) above.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 34 - DEPARTMENT OF ENVIRONMENTAL QUALITY

Determination of Air Stagnation Conditions

340-34-155 The Department shall utilize appropriate data and technology to develop methodology criteria for a curtailment program that:

- (1) For use as an emission reduction control strategy or contingency plan for PM₁₀ nonattainment areas:
 - (a) Calls a Stage I advisory when the PM₁₀ standard is being approached; and
 - (b) Calls a Stage II advisory, when an exceedance of the PM_{10} standard is forecasted to be imminent.
- (2) For use as an emission abatement strategy in order to respond to an air pollution emergency
 - (a) Calls an Alert when PM₁₀ alert levels have been reached and are forecasted to continued; and
 - (b) Calls a Warning when PM₁₀ warning levels have been reached and are forecasted to continue.
 - (c) Alert and Warning levels are specified in OAR Chapter 340, Division 27.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Prohibition on Woodburning During Periods of Air Stagnation. 340-34-160

- (1) During any designated Stage I Advisory, the operation of any uncertified woodstove, fireplace, or woodburning appliance shall be prohibited unless exempted under the provisions of OAR 340-34-015.
- (2) During any designated Stage II Advisory, the operation of any woodstove, fireplace, or woodburning appliance shall be prohibited unless exempted under the provisions of OAR 340-34-015.
- (3) During any designated PM₁₀ Alert, the operation of any uncertified woodstove, fireplace, or wood burning appliance shall be prohibited unless exempted under the provisions of OAR 340-34-015.
- (4) During any designated PM₁₀ Warning, the operation of any woodstove, fireplace, or woodburning appliance shall be prohibited unless exempted under the provisions of OAR 340-34-015.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Public Information Program

340-34-165 The Department or its designated representative shall implement a public information program to disseminate the daily air pollution advisory to the local community. The public information program shall include but may not be limited to the utilization of applicable local media including television, radio, and newspapers.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Enforcement

340-34-170

- (1) The Department or its designated representative shall monitor the level of compliance with curtailment requirements during designated periods of air stagnation.
- (2) A rebuttable presumption of a violation shall arise if smoke is being emitted through a flue or chimney during a curtailment period unless the household from which smoke is being emitted has provided the Department or designated representative with information indicating that the household or its woodburning appliance is exempt from curtailment requirements in accordance with OAR 340-34-015.
- (3) Any person claiming an exemption to OAR 340-34-150 through 340-34-175 in accordance with OAR 340-34-015 in response to a Notice of Noncompliance shall provide the Department with documentation which establishes eligibility for the exemption. The Department shall review the documentation and make a determination regarding the exemption status of the household, or woodheating appliance. The following documentation shall be submitted to the Department for review in order to establish exemption status under the criteria of OAR 340-34-015:

- (a) For households desiring low income exemption status a copy of the previous year tax returns. The tax return should reflect the total combined household income for the past year;
- (b) A signed affidavit attesting to the sole source status of a home (see note);
- (c) A signed affidavit attesting to the certification status of the home heating appliance (see note).

Note: Affidavits for certified stove, low income, and sole source exemptions are available from the Woodheating Program, Air Quality Division, Department of Environmental Quality; 811 SW Sixth Avenue, Portland, Oregon 97204.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Suspension of Department Program 340-34-175

- (1) The Department shall suspend the operation and enforcement of OAR 340-34-150 through 340-34-170 in any area upon determination by the Department that the local government or regional air quality authority has adopted and is adequately implementing a woodburning curtailment program that is at least as stringent as the program outlined in OAR 340-34-150 through 340-34-170.
- (2) In making a determination concerning the adequacy of a local or regional woodburning curtailment program, the Department shall consider whether or not the local government or regional authority:
 - (a) Has adopted an ordinance that requires the curtailment of residential woodheating at forecasted air pollution levels which are consistent with curtailment conditions specified in OAR 340-34-155;
 - (b) Is issufed in curtailment advisories to the public on a daily basis;
 - (c) Is conducting surveillance for compliance and is taking adequate enforcement actions;
 - (d) Any other information the Department determines is necessary to determine the adequacy of the curtailment program.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Woodstove Removal Contingency Program for PM₁₀ Nonattainment Areas

Applicability

340-34-200 OAR [340-34-205]340-34-200 through 340-34-215 shall apply to any area classified as a nonattainment area for PM₁₀ that does not achieve attainment [buy]by December 31, 1994.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Removal and Destruction of Uncertified Stove Upon Sale of Home. 340-34-205 Except as provided for by OAR 340-34-015, any uncertified woodstove shall be removed and destroyed by the seller upon the sale of a home.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Home Seller's Responsibility to Verify Stove Destruction

340-34-210 Any person selling a home which contains an uncertified woodstove shall provide to the Department prior to the sale of the home, a copy of a receipt from a scrap metal dealer verifying that the stove has been destroyed.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

Home Seller's Responsibility to Disclose

340-34-215 Any person selling a home in which an uncertified woodstove is present shall disclose to any potential buyer, buyer's agent or buyer's representative that the woodstove is uncertified, and must be removed and destroyed upon sale of the home.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. <u>468 & 468A</u> Hist.: AQ 7, f. & ef. 11/13/91

NOTICE OF PROPOSED RULEMAKING HEARING

(Rulemaking Statements and Statement of Fiscal Impact must accompany this form.)

AGENCY: Department of Environmental Quality, Air Quality Division

The above named agency gives notice of hearing.

HEARING TO BE HELD:

DATE:

TIME: LOCATION:

November 24, 1992 3:00 pm

Room 9A, DEQ Offices, 811 SW Sixth Avenue, Portland

Hearings Officer: Andy Ginsburg

Pursuant to the Statutory Authority of ORS 468.020, the following action is proposed:

ADOPT:

AMEND: OAR Chapter 340, Divisions 13, 14, and 20 through 34

REPEAL:

□ Prior Notice Given; Hearing Requested by Interested persons

X No Prior Notice Given

SUMMARY:

Proposed housekeeping amendments to DEQ air quality regulations. Amendments generally update statutory citations, remove passed compliance dates and outdated regulations, and correct typographical and grammatical errors.

Interested persons may comment on the proposed rules orally or in writing at the hearing. Written comments received by 5:00 pm, November 25, 1992, will also be considered. Written comments should be sent to and copies of the proposed rulemaking may be obtained from:

AGENCY: ADDRESS:

ATTN: PHONE: Department of Environmental Quality Air Quality Division 811 S. W. 6th Avenue Portland, Oregon 97204 Yone C. McNally 229-5143 or Toll Free 1-800-452-4011

Signature

Proposed Housekeeping Amendments to Air Quality Regulations, OAR Chapter 340, Division 13, 14, and 20 through 34

Date Issued: Public Hearings: Comments Due: October 21, 1992 November 24, 1992 November 25, 1992

 WHO IS
 Industrial and individual sources of air pollution and contamination in

 AFFECTED:
 Oregon.

WHAT ISHousekeeping amendments to the Department of Environmental Quality'sPROPOSED:air quality regulations.

WHAT ARE THE •Updating statutory citations.

•Repealing outdated requirements and passed compliance dates.

•Correcting grammatical and typographical errors.

HOW TO COMMENT:

HIGHLIGHTS:

Public Hearings to provide information and receive public comment are scheduled as follows:

November 24, 1992 3:00 pm Room 9A DEQ Headquarters Offices 811 SW Sixth Avenue Portland, OR

Written comments must be received by close of business on November 25, 1992, at the following address:

Department of Environmental Quality Air Quality Division 811 S. W. 6th Avenue Portland, Oregon, 97204

A copy of the Proposed Rule may be reviewed at the above address or a Regional or Branch office during regular business hours. Regional offices are located in Portland, Salem, Medford, Bend and Pendleton. Branch offices are located in Astoria, Roseburg, Coos Bay and Grants Pass. A copy may be obtained from the Department by calling the Yone C. McNally in the Air Quality Division at 229-5143 or calling toll free in Oregon 1-800-452-4011. Because of the extensive nature of the package, please specify the rule divisions of interest when requesting a copy.

WHAT IS THE NEXT STEP:

The Department will evaluate comments received and will make a recommendation to the Environmental Quality Commission. Interested parties can request to be notified of the date the Commission will consider the matter by writing to the Department at the above address.

ATTACHMENT B

State of Oregon DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

Housekeeping Amendments to Air Quality Regulations

Rulemaking Statements

Pursuant to ORS 183.335(7), this statement provides information about the Environmental Quality Commission's intended action to adopt a rule.

1. Legal Authority

This proposal amends various rules concerning air quality. The amendments are housekeeping in nature and the result of the Air Quality Division's periodic rule review as required under Oregon Revised Statutes (ORS) 183.505 through 183.550. The amendments are proposed under authority of ORS Chapters 183, 468 and 468A.

2. <u>Need for the Rule</u>

The proposed amendments are housekeeping amendments. They have resulted from public and internal review of the rules. These amendments do not have any affect on the substantive meaning of the rules. As housekeeping amendments, these amendments are designed to correct mistakes, clarify some rules and repeal out of date regulations.

3. Principal Documents Relied Upon in this Rulemaking

[•] The Oregon Administrative Procedures Act, ORS 183.505 through 183.550.

State of Oregon DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal for Housekeeping Amendments to Air Quality Regulations

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Fiscal and Economic Impact Statement

Introduction

The proposed rule amendments are housekeeping amendments which the Air Quality has identified as necessary through the periodic rule review required by Oregon Revised Statutes, Chapter 183. The changes were identified as a result of a review by Air Quality Division staff and the public. The amendments are housekeeping in nature. The goal of these amendments is help the Air Quality Division streamline some regulations and make them more understandable. Because these amendments are housekeeping in nature, there is no economic effect.

General Public

These rules amendments have no economic impact on the General Public as there are housekeeping in nature and place no new regulatory requirements on the general public.

Small Business

These rule amendments have no economic impact on small business as they are housekeeping in nature and place no new regulatory requirements on small business.

Large Business

These rule amendments have no economic impact on large business as they are housekeeping in nature and place no new regulatory requirements on large business.

Local Governments

These rule amendments have no economic impact on local governments in Oregon as they are housekeeping in nature and place no new regulatory requirements on local governments.

State Agencies

These rule amendments have no economic impact on DEQ. As they are housekeeping in nature, they require no additional FTE, no expenditure of DEQ funds, and will not produce any revenue for DEQ.

These rule amendments have no economic impact on other state agencies as they are housekeeping in nature and place no new regulatory requirements on other state agencies.

Assumptions

The basic assumption is that because these rule amendments are housekeeping in nature and create no new regulatory requirements, they have no economic effect whatsoever.

State of Oregon DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

for

Air Quality Housekeeping Amendments, Divisions 13, 14, and 20 through 34

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The proposed changes are housekeeping amendments to the agency's air quality regulations. These changes repeal outdated requirements and passed compliance dates, update statutory citations, and correct typographical and grammatical errors.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes_x__ No____

a. If yes, identify existing program/rule/activity:

OAR Chapter 340, Divisions 14 and 20: Approval of Notice of Construction for Air Pollution Sources; Issuance of Air Contaminant Discharge Permit; Issuance of Indirect Source Construction Permit; Approval of Parking and Traffic Circulation Plan.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes_x__ No____ (if no, explain):

c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs or rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or

- 2. Reasonably expected to have significant effects on
 - a. resources, objectives or areas identified in the statewide planning goals, or
 - b. present or future land uses identified in acknowledged comprehensive plans.

In applying criterion 2. above, two guidelines should be applied to assess land use significance:

- The land use responsibilities of a program/rule/action that involves more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Not Applicable.

nwoo

Intergovernmental Coord.

State of Oregon Department of Environmental Quality

Memorandum

Date: December 15, 1992

То:	Environmental Quality Commission				
From:	Andrew Ginsburg Advers				
Subject:					
*					
Hearing Date and Time: November 24, 1992, beginning at 3:00 p.m.					
Hearing Location:		Room 9A, DEQ Offices, 811 SW Sixth Avenue, Portland			
Title of Proposal: Proposed Housekeeping Amendments to Air Quality Regulations, OAR Chapter 340, Divisions 13, 14, and 2 through 34.		egulations, OAR Chapter 340, Divisions 13, 14, and 20			

The rulemaking hearing on the above titled proposal was convened at 3:15 p.m. No members of the public attended the hearing and, so, no oral or written testimony was received at the hearing. The hearing was closed at 3:45 p.m.

STOEL RIVES BOLEY IONES&GREY

ALFORNEYS ALLAW SUITE 2300 STANDARD INSURANCE CENTER 900 SW FIFTH AVFNUE PORTLAND, OREGON 97204-1268 Telephone (503) 224-3380 Telepone (503) 220-2480

Cable Lawport Telex 703455 Writer's Direct Dial Number

(503) 294-9259

November 20, 1992

ATTACHMENT D NAV

AIR QUALITY DECS.ON Dept. Environmental Quality

Mr. Andy Ginsburg Department of Environmental Quality 811 SW Sixth Ave. Portland, OR 97204

> Re: Proposed Revisions to OAR 340 Divisions 13, 14, and 20 through 34

Dear Andy:

Thank you for the opportunity to comment on DEQ's proposed changes to its air quality rules. We recognize that these proposed revisions have required significant effort, and we appreciate the attempt to clarify certain provisions and correct internal inconsistencies. However, we have noticed a few provisions in the proposed amendments that go well beyond mere housekeeping changes and may create significant problems.

<u>340-20-005</u> - The proposed revisions to this section would require "any air contaminant source not subject to the air contaminant discharge permit rules" to register with DEQ upon request. This change is a significant expansion of the existing rule which required registration in 1971 of certain categories of sources. It appears, that the section as it exists has outlived its usefulness. If so, it should simply be deleted. With respect to the proposed revision, we question the need for registration of sources that are not subject to permitting requirements. Given the extensive scope of DEQ's permitting rules, sources that are exempt from permitting should not be subjected to additional requirements. In any event, because a proposed change creates significantly new obligations, it should not be regarded as a housekeeping change and should not be made without adequate notice to the public.

<u>340-21-005</u> - This amendment would add a definition for opacity and would measure it "in accordance with the Department's Source Sampling Manual." This change suggests that the Source Sampling Manual would be given the force and

PDX1-27595.1

Mr. Andy Ginsburg November 20, 1992 Page 2

effect of a regulation. However, the Source Sampling Manual has not been developed by the Department through appropriate rulemaking procedures. As written, it would appear that the Department could modify the Source Sampling Manual at any time, thereby significantly changing the proposed definition without public notice. If the definition of opacity is necessary, reference to the Department's Source Sampling Manual should be deleted or the manual should be subjected to proper rulemaking procedures.

Although we have noticed several other provisions that appear to make substantive changes in the rules, we have not analyzed their effect. In particular, we noticed that the changes to 340-24-325 would change the carbon monoxide and carbon dioxide test criteria for motor vehicles equipped with two air pumps. We also noticed that the changes to Section 340-23-030 will substantially undermine the exceptions to the definition of commercial waste for agricultural waste, construction waste and demolition waste. These changes would appear to be substantive in nature and their effect should be more fully explained in the public notice.

If you have any questions or would like to discuss these comments, please call me.

Very truly yours, Mark Morford

JMM:v-q

DEPARTMENT'S EVALUATION OF PUBLIC COMMENTS

The Air Quality Division received one letter containing four comments during the public comment period. The commentor was Mark Morford of the law firm Stoel, Rives, Boley, Jones & Grey. Mr. Morford's comments are summarized below along with an agency response. Mr. Morford's letter is contained in Attachment D.

Comment 1

The proposed changes to the general registration rule (340-20-005) are substantive and represent an expansion of the existing rule. The rule has outlived its usefulness and should be repealed.

Response

340-20-055 was originally adopted in 1971 and lists sources which were required to register with the Department. At the time, this rule was used to help the Department determine what sources were operating and whether a source required an Air Contamination Discharge Permit. All of the sources listed by this rule are now required to have permits. However, this rule is still a useful tool for the Department. It allows the Department to gather information on the possible permitting needs of unregulated or unregistered sources which may be discovered.

The change proposed to the rule does not represent a substantive change. The amendment deletes the list of specific sources because those sources are covered under the permit regulations. The rule does retain the catchall for unpermitted sources which the Department may discover. This catchall language is not a new requirement.

Comment 2

340-21-005 contains a proposed definition of "opacity" which measures opacity in "accordance with the Department's Source Sampling Manual." This gives the manual the force of a rule without going through proper rulemaking. As such, this definition represents a substantive rule change.

Response

The Department's Source Sampling Manual went through the full rule making process between November 1991 and January 1992. It was released for public comment in November 1991, a hearing was conducted in December 1991, and it was adopted by the Environmental Quality Commission as part of the State Implementation under OAR 340-20-047 in January 1992.

Comment 3

340-23-325 would change the carbon monoxide standard considered acceptable for cars with two air pumps. This represents a substantive change in the standard.

Response

In the proposed amendment, in order to pass the test, carbon monoxide measurements from a car with one air pump cannot exceed 8%, while a car with two air pumps cannot exceed 6%. The current standard for all vehicles is 8%. The Department agrees that this does represent a substantive change in the standard. The Department has deleted this amendment from this package and will propose it again as part of a substantive rule making in 1993.

Comment 4

340-23-030 contains amendments to the definitions of agricultural, construction and demolition waste. These represent substantive changes as they would greatly expand the Department's authority to regulate these types of waste.

Response

In the proposed amendments, the definitions of agricultural, construction and demolition waste were changed to include language which would make such waste "commercial" waste if the waste were removed from the property of origin, consistent with the requirements for "domestic" waste. However, this would change the way the Department enforces its open burning rules concerning these types of waste. Because these changes do represent a substantive change, the Department has deleted these amendments from this package.

attach.e

Changes to Original Rulemaking Proposal

The following explains the changes proposed between the amendments presented for public hearing and the current amendments proposed for adoption. For each change, an explanation of the changes and the new regulatory language is included. For clarity, only the changes between rules as presented for public hearing and proposed for adoption are shown in this attachment. See Attachment A for the complete text of amendments proposed for adoption.

1. Note for SIP rules

One general change has been made throughout the rules. That change is to an editorial note proposed to appear after each rule that has been adopted by the EQC as part of the "State of Oregon Clean Air Act State Implementation Plan" (SIP) under OAR 340-20-This note was proposed to inform the public about which 047. rules are part of the SIP as adopted by the EQC. The original note could create the impression that the Environmental Protection Agency had approved the latest version of any given While EPA has approved the majority of the rules, this may rule. not be the case for new amendments and newly adopted rules. Air Quality staff, in consultation with the Attorney General's office, have proposed changing the note as follows:

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan <u>as</u> adopted <u>by the Environmental Quality</u> <u>Commission</u> under OAR 340-20-047].

2. OAR 340-20-110

On October 16, 1992, the Environmental Quality Commission adopted rules regulating oxygenated fuels. These rules went into effect on November 1, 1992. In that rulemaking, OAR 340-20-110, Definitions for Indirect Source regulations, was amended to include the definition for "Indirect Source Operating Permit." The section number for this definition has been changed from (29) to (17) and the other definitions have been renumbered so that the definitions will appear in alphabetical order.

Definitions

340-20-110

As used in OAR 340-20-100 through 340-20-135:

[(29)]**(17)**

"Indirect Source Operating Permit" means a written permit in letter form issued by the Department or Regional Authority having jurisdiction, bearing the signature of the Director or designee, which authorizes the permittee to operate an indirect source.

- "Mobile Source" means self-propelled vehicles, powered by internal combustion engines including, but not limited to, automobiles, trucks, motorcycles, and aircraft.
- [(18)](19) "Off-street Area or Space" means any area or space not located on a public road dedicated for public use.
- (19)](20) "Parking and Traffic Circulation Plan" means a
 plan developed by a city, county, or regional
 government or Regional Planning Agency, the
 implementation of which assures the attainment and
 maintenance of the state's ambient air quality
 standards.
- [(20)](21) "Parking Facility" means any building, structure, lot, or portion thereof, designed and used primarily for the temporary storage of motor vehicles in designated parking spaces.
- [(21)](22) "Parking Space" means any Off-Street Area of Space below, above, or at ground level, open or enclosed, that is used for parking one motor vehicle at a time.
- f(22)](23) "Person" means individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the State and any agencies thereof, and the federal government and any agencies thereof.
- **[(23)](24)** "Population" means that population estimate most recently published by the Center for Population Research and Census, Portland State University, or any other population estimate approved by the Department.
- [(24)](25) "Regional Authority" means a regional air quality control authority established under the provisions of ORS 468A.105.
- [(25)](26) "Regional Planning Agency" means any planning agency which has been recognized as a substate-clearinghouse for the purposes of conducting project review under the United States Office of Management and Budget Circular Number A-95, or other governmental agency having planning authority.
- "Reasonable Receptor and Exposure Sites" means locations where people might reasonably be expected to be exposed to air contaminants generated in whole or in part by the Indirect Source in question. Location of ambient air sampling sites and methods of sample collection shall conform to criteria on file with the Department of Environmental Quality.

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- [(27)](28) "Sensitive Area" means locations which are actual or potential air quality non-attainment areas, as determined by the Department.
- **(28)](29)** "Vehicle Trip" means a single movement by a motor vehicle which originates or terminates at or uses an Indirect Source.

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 81, f. 12-5-74, ef. 12-25-74; DEQ 86, f. 3-11-75, ef.
4-11-75; DEQ 110(Temp), f. & ef. 3-1-76 thru 7-14-76; DEQ 118, f.
& ef. 8-11-76; DEQ 17-1990, f. & cert. ef. 5-25-90; AQ 22, f. 1030-92, ef. 11-1-92

3. OAR 340-23-030

In the package presented for public hearing, it was proposed that agricultural, construction or demolition waste be defined as commercial waste upon removal from the property of origin. A comment received argued that this change was substantive and not housekeeping. The Department agrees with this comment and is removing the language from proposed rules.

Definitions

340-23-030 As used in this Division:

- (4) "Agricultural waste" means any waste material actually generated or used by an agricultural operation, excluding those materials described in OAR 340-23-042(2). [Once agricultural waste is removed from the agricultural operation of origin it becomes commercial waste.]
- (11) "Construction waste" means any waste material actually resulting from or produced by a building or construction project. Examples of construction waste are wood, lumber, paper, crating and packing materials used during construction, materials left after completion of construction and materials collected during cleanup of a construction site. [Once construction waste is removed from the site of origin it becomes commercial waste.]
- (13) "Demolition waste" means any material actually resulting from or produced by the complete or partial destruction or tearing down of any man-made structure or the clearing of any site for land improvement or cleanup excluding yard debris (domestic waste) and agricultural waste. [Once demolition waste is removed from the site of origin it becomes commercial waste.]

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4. OAR 340-23-055

OAR 340-23-115 limits open burning in incorporated cities with populations over 5,000. Brookings is now a city with a population over 5,000. Air Quality staff have determined that Brookings is in fact subject to open burning limitations under 340-23-115, and therefore should be identified in 340-23-055 for clarity.

Baker, Clatsop, Crook, Curry, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Lincoln, Malheur, Morrow, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco and Wheeler Counties

340-23-055 Open burning prohibitions for the counties of Baker, Clatsop, Crook, Curry, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Lincoln, Malheur, Morrow, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco and Wheeler:

- (1) Industrial open burning is prohibited except as provided in OAR 340-23-100.
- (2) Agricultural open burning:
 - (a) In Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco and Wheeler Counties, agricultural open burning is allowed under this Division subject to OAR 340-23-040(5).
 - (b) In Clatsop, Curry, Lincoln and Tillamook Counties agricultural open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal.
- (3) Commercial open burning is allowed subject to OAR 340-23-040, 340-23-042 and 340-23-043, and the requirements and prohibitions of local jurisdictions and the State Fire Marshal, except that, unless authorized pursuant to OAR 340-23-100, all commercial open burning is prohibited in or within three (3) miles of the corporate city limits of the following cities:
 - (a) In Baker County, the City of Baker.
 - (b) In Clatsop County, the Cities of Astoria and Seaside.
 - (c) In Crook County, the City of Prineville,
 - (d) <u>In Curry County, the City of Brookings</u>
 - f(d) f(e) In Deschutes County, the Cities of Bend and Redmond,
 - [(e)](f) In Hood River County, the City of Hood River,
 - [(f)](g) In Klamath County, the City of Klamath Falls.
 - [(g)](h) In Lincoln County, the Cities of Lincoln City and Newport.
 - [(h)](i) In Malheur County, the City of Ontario.
 - [(i)](j) In Umatilla County, the Cities of Hermiston, Milton-Freewater and Pendleton.

(4)	<pre>[(j)](k) In Union County, the City of La Grande. [(k)](1) In Wasco County, the City of The Dalles. Construction and Demolition open burning is allowed subject</pre>					
\ - /	to the requirements and prohibitions of local jurisdictions,					
	the State Fire Marshal, OAR 340-23-040, 340-23-042 and 340-					
	23-043, except that, unless authorized pursuant to OAR 340-					
	23-100, Construction and Demolition open burning is					
	prohibited in or within three (3) miles of the corporate					
	city limits of the following cities:					
	(a) In Baker County, the City of Baker,					
	(b) In Clatsop County, the City of Astoria.					
	(c) In Crook County, the City of Prineville.					
	(d) <u>In Curry County, the City of Brookings</u>					
	[(d)](e) In Deschutes County, the Cities of Bend and					
	Redmond.					
	f(e) f(f) In Hood River County, the City of Hood River.					
	[(f)](g) In Klamath County, the City of Klamath Falls.					
	(g) In Malheur County, the City of Ontario.					
	<pre>(h) i) In Umatilla County, the Cities of Hermiston, Milton-Freewater and Pendleton.</pre>					
	(i) In Union County, the City of La Grande.					
(5)	(j) In Wasco County, the City of The Dalles. Domestic open burning is allowed subject to the requirements					
, (s)	and prohibitions of local jurisdictions, the State Fire					
	Marshal, and OAR $340-23-040$, $340-23-042$ and $340-23-043$.					
	marshar, and OAK 340-23-040, 340-23-042 and 340-23-043.					

5. OAR 340-24-320(6) and (7)

During the review process for housekeeping amendments, the Vehicle Inspection Program clarified the model year to which specific standards applied. This clarification was to make the model cut-off consistent throughout the rules. However, in the proposed package, a typographical error occurred. This error is corrected to make this regulation consistent with other regulations.

. . .

- (6) If a vehicle older than the <u>[1980]1981</u> model year is now equipped with other than the original engine and factory installed vehicles pollution control systems, the vehicle for the purposes of determining test standards, shall be classified by the vehicle's original model year classification and current fuel system.
- (7) A <u>f1980<u>f</u>1981</u> and newer vehicle shall be classified by the model year and make of the vehicle as designated by the original chassis, engine, and its factory installed motor vehicle pollution control systems, or equivalent. This in no way prohibits the vehicle owner from upgrading the engine and emission control system to a more recent model year

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category including a diesel (compression ignition) power plant providing that all of the new factory installed pollution control system is maintained.

6. OAR 340-24-325

A comment was received that a proposed housekeeping change in Heavy Duty Gasoline Motor Vehicle Emission Control Test Criteria establishing different standards for vehicles based on the number of air pumps was in fact substantive in nature. Even though the proposed change is actually a relaxation of the standard for vehicles with two air pumps, the Air Quality Division staff does agree that any change to a standard is substantive and should not be made as part of housekeeping changes. Therefore, the rule has been changed back to its original language.

Heavy Duty Gasoline Motor Vehicle Emission Control Test Criteria 340-24-325

- (1) No vehicle emission control test shall be considered valid if the vehicle exhaust system leaks in such a manner as to dilute the exhaust gas being sampled by the gas analytical system. For the purpose of emission control tests conducted at state facilities, tests will not be considered valid if the exhaust gas is diluted to such an extent that the sum of the carbon monoxide and carbon dioxide concentrations recorded for the idle speed reading from an exhaust outlet is[:] eight percent or less.
 - {(a) 8 percent or less for vehicles equipped with one air
 pump, or;
 - (b) less than 6 percent for vehicles equipped with two air pumps.]

7. Divisions 28 and 29

Divisions 28 and 29 contain air quality regulations which are specific to counties in the Portland Metropolitan area and the Salem Metropolitan area. In November 1991, Division 30 was expanded from containing solely air quality regulations for Medford and Grants Pass to containing air quality regulations for areas with special air quality needs. Because of this change to Division 30 and the Air Quality Division's need to have room to reorganize and expand its rules, it is proposed that the rules contained in Divisions 28 and 29 be renumbered and made part of Division 30. Air Quality staff believes this is necessary to provide a better structure for the rules and room for new rules required under the Clean Air Act Amendments of 1990.

With two exceptions, the rules in Divisions 28 and 29 are proposed to be moved to Division 30 exactly as they appeared in the proposal presented for public hearing. The first exception is a change in the purpose and application rules (340-28-001 and 340-29-001). The purpose and stringency language was combined with 340-30-005 which applies to all of Division 30, and the application language was revised to show the range of rules in Division 30 that correspond to the old Division 28 and 29 rules. The second exception is that definitions from Division 28 and 29 were combined with definitions in 340-30-010. Three definitions from Division 29 were deleted because they essentially duplicate existing definitions in Division 30 ("Emission," "Particulate Matter" and "Person"). The remaining three definitions from Divisions 28 and 29 were added to Division 30 ("Air Contaminant," "Fuel Burning Equipment" and "Odor"). The definition of "Air Contaminant" was modified slightly to match the statutory definition in ORS 468A.005(2). The definitions of "Odor" in Divisions 28 and 29 differ slightly, and the version from Division 29 was used. These minor changes in definitions do not have any substantive effect.

DIVISION 30

SPECIFIC AIR POLLUTION CONTROL RULES FOR AREAS WITH UNIQUE AIR QUALITY CONTROL NEEDS

Purpose and Application

340-30-005 The purpose of this Division is to deal specifically with the unique air quality control needs of areas of the state specified in OAR 340-30-012, [and] OAR 340-30-200, <u>OAR 340-30-400 and OAR 340-30-600</u>. This Division shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of this Division shall not, in any way, affect the applicability in the specified areas of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cases of apparent conflict, the most stringent rule shall apply.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 22-1989, f. & cert. ef.
9-26-89; AQ 8, f. & ef. 11/13/91

Definitions

340-30-010 As used in this Division:

- (1) "Air contaminant" means a dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter, or any combination thereof.
- (1) (2) "Air Conveying System" means an air moving device, such as a fan or blower, associated ductwork, and a cyclone or other collection device, the purpose of which is to move material from one point to another by entrainment in a moving airstream.
- (2)](3) "Average Operating Opacity" means the opacity of emissions determined using EPA Method 9 on any three days within a 12-month period which are separated from each other by at least 30 days ; a violation of the average operating opacity limitation is judged to have occurred if the opacity of emissions on each of the three days is greater than the specified average operating opacity limitation.
- (3) (4) "Charcoal Producing Plant" means an industrial
 operation which uses the destructive distillation of
 wood to obtain the fixed carbon in the wood.
- [(4)](5) "Collection Efficiency" means the overall performance of the air cleaning device in terms of ratio of weight of material collected to total weight of input to the collector.
- [(5)](6) "Department" means Department of Environmental
 Quality.
- [(6)](7)
 "Design Criteria" means the numerical as well as
 verbal description of the basis of design, including
 but not necessarily limited to design flow rates,
 temperatures, humidities, contaminant descriptions in
 terms of types and chemical species, mass emission
 rates, concentrations, and specification of desired
 results in terms of final emission rates and
 concentrations, and scopes of vendor supplies and
 owner-supplied equipment and utilities, and a
 description of any operational controls.
- [(7)](8) "Domestic Waste" means combustible household waste, other than wet garbage, such as paper, cardboard, leaves, yard clippings, wood, or similar materials generated in a dwelling housing four (4) families or less, or on the real property on which the dwelling is situated.
- (8)](9) "Dry Standard Cubic Foot" means the amount of gas that would occupy a volume of one cubic foot, if the gas were free of uncombined water at standard conditions.

[(9)](10) "Emission" means a release into the outdoor atmosphere of air contaminants.

f(10) (11) "EPA Method 9" means the method for Visual Determination of the Opacity of Emissions From

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Stationary Sources as promulgated by the U.S. Environmental Protection Agency in **Title 40 of the** Code of Federal Regulations, Part 60, Appendix A, Method 9.

- [(11)](12) "Facility" means an identifiable piece of process
 equipment. A stationary source may be comprised of
 one or more pollutant-emitting facilities.
- (13) "Fuel Burning Equipment" means a device which burns a solid, liquid, or gaseous fuel, the principal purpose of which is to produce heat, except marine installations and internal combustion engines that are not stationary gas turbines.
- F(12)](14) "Fuel Moisture Content By Weight Greater Than 20 Percent" means bark, hogged wood waste, or other wood with an average moisture content of more than 20 percent by weight on a wet basis as used for fuel in the normal operation of a wood-fired veneer dryer as measured by ASTM D4442-84 during compliance source testing.
- f(13) f(15) "Fuel Moisture Content By Weight Less Than 20 Percent" means pulverized ply trim, sanderdust, or other wood with an average moisture content of 20 percent or less by weight on a wet basis as used for fuel in the normal operation of a wood-fired veneer dryer as measured by ASTM D4442-84 during compliance source testing.
- [(14)](16) "Fugitive Emissions" means dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof not easily given to measurement, collection and treatment by conventional pollution control methods.
- [(15)](17)
 "General Arrangement", in the context of the
 compliance schedule requirements in section 340-32 045(2), means drawings or reproductions which show as
 a minimum the size and location of the control
 equipment on a source plot plan, the location of
 equipment served by the emission-control system, and
 the location, diameter, and elevation above grade of
 the ultimate point of discharging contaminants to the
 atmosphere.
- [(16)](18) "Grants Pass Urban Growth Area" and "Grants Pass Area" means the area within the Grants Pass Urban Growth Boundary as shown on the Plan and Zoning Maps for the City of Grants Pass as of 1 February 1988.
- [(17)](19) "Hardboard" means a flat panel made from wood that has been reduced to basic wood fibers and bonded by adhesive properties under pressure.
- [(18)](20) "La Grande Urban Growth Area" means the area within the La Grande Urban Growth Boundary as shown on the Plan and Zoning Maps for the City of La Grande as of 1 October 1991.

[(19)](21) "Lowest Achievable Emission Rate" or "LAER" is defined by section 340-20-225

[(20)](22) "Maximum Opacity" means the opacity as determined by EPA Method 9 (average of 24 consecutive observations).

[(21)](23) "Medford-Ashland Air Quality Maintenance Area" and "Medford-Ashland AQMA" is defined as beginning at a point approximately one mile NE of the town of Eagle Point, Jackson County, Oregon, at the NE corner of Section 36, T35S, R1W; thence south along the Willamette Meridian to the SE corner of Section 25, T37S, R1W; thence SE along a line to the SE corner of Section 9, T39S, R2E; thence SSE to the corner of Section 22, T39S, R2E; thence south to the SE corner of Section 27, T39S, R2E; thence SW to the SE corner of Section 33, T39S, R2E; thence NW to the NW corner of Section 36, T39S, R1E; thence west to the SW corner of Section 26, T39S, T1E; thence west to the SW corner of Section 12, T39S, R1W; thence NW along a line to the SW corner of Section 20, T38S, R1W; thence west to the SW corner of Section 24, T38S, R2W; thence NW along a line to the SW corner of Section 4, T38S, R2W; thence west to the SW corner of Section 5, T38S, R2W; thence NW along a line to the SW corner of Section 31, T37S, R2W; thence north along a line to the Rogue River, thence north and east along the Rogue River to the north boundary of Section 32, T35S, R1W; thence east along a line to the point of beginning.

[(22)](24) "Modified Source" means any source with a "major modification" as defined in OAR 340-20-225.

[(23)](25) "New Source" means any source not in existence prior to April 7, 1978 or any source not having an Air Contaminant Discharge Permit as of April 7, 1978.

(26)"Odor" means that property of an air contaminant that affects the sense of smell.

[(24)](27) "Offset" is defined by OAR 340-20-225.

[(25)](28) "Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background as measured in accordance with the Department's Source Sampling Manual.

- [(26)](29) "Open Burning" means burning conducted in such a manner that combustion air and combustion products may not be effectively controlled including, but not limited to, burning conducted in open outdoor fires, burn barrels, and backyard incinerators.
- [(27)](30) "Particleboard" means matformed flat panels consisting of wood particles bonded together with synthetic resin or other suitable binders.
- [(28)](31) "Particulate Matter" means all solid or liquid material, other than uncombined water, emitted to the ambient air as measured in accordance with the

Department Source Sampling Manual. Particulate matter emission determinations shall consist of the average of three separate consecutive runs. For sources tested using DEQ Method 5 or DEQ Method 7, each run shall have a minimum sampling time of one hour, a maximum sampling time of eight hours, and a minimum sampling volume of 31.8 dscf. For sources tested using DEQ Method 8, each run shall have a minimum sampling time of 15 minutes and shall collect a minimum particulate sample of 100 mg. Wood waste boilers and charcoal producing plants shall be tested with DEQ Method 5; veneer dryers, wood particle dryers, fiber dryers and press/cooling vents shall be tested with DEQ Method 7; and air conveying systems shall be tested with DEQ Method 8.

- [(29)](32) "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.
- [(30)](33) "Rebuilt Boiler" means a physical change after April 29, 1988, to a wood-waste boiler or its aircontaminant emission control system which is not considered a "modified source" and for which the fixed, depreciable capital cost of added or replacement components equals or exceeds fifty percent of the fixed depreciable cost of a new component which has the same productive capacity.
- [(31)](34) "Source" means any structure, building, facility, equipment, installation or operation, or combination thereof, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person, or by persons under common control.
- [(32)](35) "Standard Conditions" means a temperature of 60
 degrees Fahrenheit (15.6 degrees Celsius) and a
 pressure of 14.7 pounds per square inch absolute (1.03
 Kilograms per square centimeter).
- [(33)](36) "Veneer" means a single flat panel of wood not exceeding 1/4 inch in thickness formed by slicing or peeling from a log.
- [(34)](37) "Veneer Dryer" means equipment in which veneer is dried.
- [(35)](38) "Wood-fired Veneer Dryer" means a veneer dryer which is directly heated by the products of combustion of wood fuel in addition to or exclusive of steam or natural gas or propane combustion.
- [(36)](39) "Wigwam Waste Burner" means a burner which consists of a single combustion chamber, has the general features of a truncated cone, and is used for the incineration

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of wastes.

[(37)](40) "Wood Waste Boiler" means equipment which uses indirect heat transfer from the products of combustion of wood waste to provide heat or power.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 4-1978, f. & ef. 4-7-78; DEQ 9-1979, f. & ef. 5-3-79;
DEQ 3-1980, f. & ef. 1-28-80; DEQ 14-1981, f. & ef. 5-6-81; DEQ
22-1989, f. & cert. ef. 9-26-89; AQ 8, f. & ef. 11/13/91

SPECIFIC AIR POLLUTION CONTROL RULES FOR CLACKAMAS, COLUMBIA, MULTNOMAH, AND WASHINGTON COUNTIES

[Purpose and] Application

340-[28-001]30-400 [This division]OAR 340-30-400 through 340-30-540 shall apply in Clackamas, Columbia, Multnomah, and Washington Counties.[The purpose of this Division is to deal specifically with the air quality control needs of the four county area. This Division shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of this Division shall not, in any way, affect the applicability in the four county area of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cases of apparent duplication, the most stringent rule shall apply.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 001

Exclusions

340-<u>[28-003]30-410</u> The requirements contained in [this <u>division]OAR 340-30-400</u> through 340-30-540 shall apply to all activities conducted in Clackamas, Columbia, Multnomah, and Washington Counties, other than those for which specific industrial standards have been adopted (Division 25), except for the reduction of animal matter, sections 340-25-055(1) and (2).

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-003

Incinerators and Refuse Burning Equipment 340-<u>[28-025]30-420</u>

- (1) No person shall cause, permit, or maintain any emission from any refuse burning equipment which does not comply with the emission limitations of this rules.
- (2) Refuse Burning Hours:
 - (a) No person shall cause, permit, or maintain the operation of refuse burning equipment at any time other than one-half hour before sunrise to one-half hour after sunset, except with prior approval of the Department.
 - (b) Approval of the Department for the operation of such equipment may be granted upon the submission of a written request stating:
 - (A) Name and address of the applicant;
 - (B) Location of the refuse burning equipment;
 - (C) Description of refuse burning equipment and its control apparatus;
 - (D) Type and quantity of refuse;
 - (E) Good cause for issuance of such approval;
 - (F) Hours during which the applicant seeks to operate the equipment;
 - (G) Time duration for which approval is sought.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-025

Concealment and Masking of Emissions 340-[28-030]30-430

- (1) No person shall willfully cause or permit the installation or use of any device or use of any means such as dilution, which, without resulting in a reduction in the total amount of air contaminant emitted, conceals an emission of air contaminants which would otherwise violate OAR Chapter 340.
- (2) No person shall cause or permit the installation or use of any device or use of any means designed to mask the emission of an air contaminant, which air contaminant causes or is likely to cause detriment to health, safety, or welfare of any person.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 030

Effective Capture of Air Contaminant Emissions

340-[28-040]30-440 Air contaminants which are, or may be, emitted to the atmosphere through doors, windows, or other openings in a structure or which are, or may be, emitted from any

process not contained in a structure, shall be captured and transferred to air pollution control equipment using the most efficient and best practicable hooding, shrouding, or ducting equipment available. New sources shall comply at the time of installation.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-040

Odor Control Measures 340-[28-045]30-450

- (1) Control apparatus and equipment, using the highest and best practicable treatment currently available, shall be installed and operated to reduce to a minimum odor-bearing gases or odor-bearing particulate matter emitted into the atmosphere.
- (2) Gas effluents from incineration operations and process after-burners shall be maintained at a temperature of 1,400 degrees Fahrenheit for at least a 0.5 second residence time, or controlled in another manner determined by the Department to be equally or more effective.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 045

Storage and Handling of Petroleum Products 340-<u>[28-050]30-460</u>

- (1) In volumes of greater than 40,000 gallons, gasoline or any volatile petroleum distillate or organic liquid having a vapor pressure of 1.5 p.s.i.a. or greater under actual storage conditions shall be stored in pressure tanks or reservoirs or shall be stored in containers equipped with a floating roof or vapor recovery system or other vapor emission control device.
- (2) Gasoline or petroleum distillate tank car or tank loading facilities handling 20,000 gallons per day or more shall be equipped with submersible filling devices or other vapor emission control systems.
- (3) Gasoline tanks with a capacity of 500 gallons or more, installed after January 1, 1970, shall be equipped with submersible filling device or other vapor emission control systems.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-050

Ships

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340-[28-055]30-470 While in those portions of the Willamette River and Columbia River which pass through or adjacent to Clackamas, Columbia, and Multnomah Counties, each ship shall minimize emissions from soot blowing and shall be subject to the emission standards and rules for visible emissions and particulate matter size.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-055

Upset Condition

340-[28-060]30-480 Emission of air contaminants in excess of applicable standards as a result of equipment breakdown shall be subject to OAR 340-20-350 through 340-20-380.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73,, Renumbered from 340-28-060

Emission Standards - General

340-[28-065]30-490 Compliance with any specific emission standard in this Division does not preclude required compliance with any other applicable emission standard or requirement contained in OAR Chapter 340.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-065

Visible Air Contaminant Standards

340-[28-070]30-500 No person owning, operating, or maintaining non-fuel burning equipment sources of emissions shall discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods at the bar (c) aggregating more than thirty (30) seconds in any one hour (which is equal to or greater than 20 percent opacity at a lead to a

Stat. Auth.: ORS Ch. 468 & 468A and anti- Juw a stat dullbash (1) Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-070 しゃくかいがた くらごえ こうかれい しし やき 詰ませい あばい 1. C. 1 3.

Particulate Matter Weight Standards 340-[28-075]30-510

- 7.9 The maximum allowable emission of particulate matter from (1) any fuel burning equipment shall:
 - Be a function of maximum heat input and shall be (a) determined from Figure 1, except from existing fuel burning equipment utilizing wood residue, it shall be

3.25 12 2

0.2 grain, and from new fuel burning equipment utilizing wood residue, it shall be 0.1 grain for each standard cubic foot of exhaust gas, calculated to 12 (percent carbon dioxide;

- (b) Not exceed Smoke Spot #2 for distillate fuel and #4 for residual fuel, measured by ASTM D2156-65, "Standard Method for Test for Smoke Density of the Flue Gases from Distillate Fuels"
- (2) The maximum allowable emission of particulate matter from any refuse burning equipment shall be a function of the maximum heat input from the refuse only and shall be determined from Figure 2.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule is available from the office of the Secretary of State or Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 075

Particulate Matter Size Standard

340-<u>[28-080]30-520</u> No person shall cause or permit the emission of any particulate matter which is larger than 250 microns in size provided such particulate matter does or will deposit upon the real property of another person.

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-080

Sulfur Dioxide Emission Standard

340-[28-085]30-530 No person shall cause or permit emission of sulfur dioxide in excess of 1000 ppm from any air contamination source as measured in accordance with the Department's Source Test Manual, except those persons burning fuel conforming to provisions of rules relating to the sulfur content of fuels. This rule is applicable to sources installed, constructed, or modified after October 1, 1970.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73, Renumbered from 340-28-085

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Odors

340-[28-090]30-540

- (1) No person shall cause or permit the emission of odorous matter in such manner as to contribute to a condition of air pollution, or exceed:
 - (a) A scentometer No. 0 odor strength or equivalent dilution in residential and commercial areas.
 - (b) A scentometer No. 2 odor strength or equivalent dilution in all other land use areas.

Scentometer Readings: Scentometer No. and Concentration Range-No. of Thresholds, respectively:

0 ----- 1 to 2 1 ----- 2 to 8 2 ----- 8 to 32 3 ----- 32 to 128

(2) A violation of this rule shall have occurred when two measurements made within a period of one hour, separated by at least 15 minutes, off the property surrounding the air contaminant source exceeds the limitations of section (1).

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 61, f. 12-5-73, ef. 12-25-73<u>, Renumbered from 340-28-</u> 090

SPECIFIC AIR POLLUTION CONTROL RULES FOR BENTON, LINN, MARION, POLK, AND YAMHILL COUNTIES

[Purposes and] Application

340-[29-001]30-600 [This Division]OAR 340-30-600 through <u>340-30-620</u> shall apply in Benton, Linn, Marion, Polk and Yamhill counties.[The purpose of this Division is to deal specifically with the air quality control needs of the five county area. This Division shall apply in addition to all other rules of the Environmental Quality Commission. The adoption of this Division shall not, in any way, affect the applicability in the five county area of all other rules of the Environmental Quality Commission and the latter shall remain in full force and effect, except as expressly provided otherwise. In cased of apparent duplication, the most stringent rule shall apply.]

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 109, f. 3-15-76, ef. 3-25-76; DEQ 11-1982, f. & ef.
6-18-82, Renumbered from 340-29-001

Odors

340-129-011-30-610

- Unless otherwise regulated by specific odor regulation or (1)standard, no person shall cause or permit the emission of odorous matter:
 - in such a manner as to cause a public nuisance, or (a)
 - that occurs for sufficient duration or frequency so (b) that two measurements made within a period of one (1). hour, separated by at least 15 minutes, off the property surrounding the emission point, that is equal to or greater than a Scentometer No. 0 or equivalent dilutions in areas used for residential, recreational, educational, institutional, hotel, retail sales or other similar purposes.
- (2) In all land use areas other than those specified in subsection (1)(b) of this rule, release of odorous matter shall be prohibited if equal to or greater than a Scentometer No. 2 odor strength, or equivalent dilutions.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A Hist.: DEQ 11-1982, f. & ef. 6-18-82, Renumbered from 340-29-011

Particulate Matter Size Standard

340-[29-030]30-620 No person shall cause or permit the emission of any particulate matter which is larger than 250 microns in size provided such particulate matter does or will deposit upon real property of another person.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-647, j^{+7} and the second second

Stat. Auth.: ORS Ch. 468 & 468A n na Standard (* 1997) Standard Standard (* 1997) Hist.: DEQ 11-1982, f. & ef. 6-18-82, Renumbered from 340-29-030

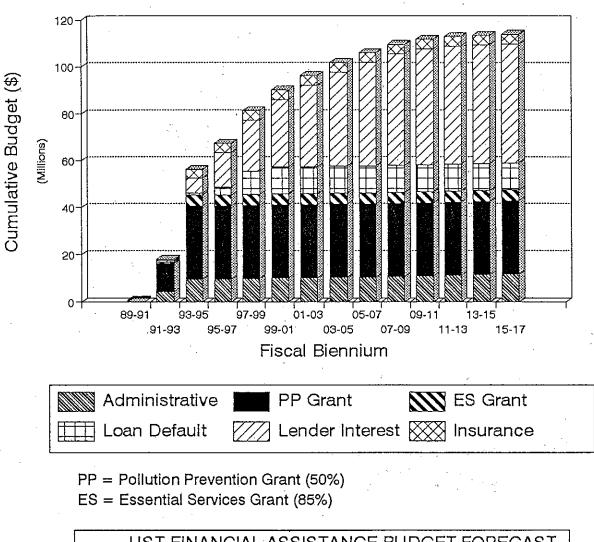
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12/23/92 12 11 80

F-18 8

Bar Chart 1

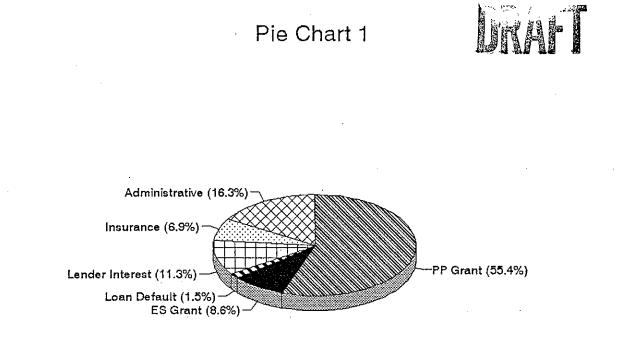
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UST FINANCIAL ASSISTANCE BUDGET FORECAST September, 1989 to September, 2017 Forecast Prepared: 5-13-92

Compiled By:

Larry D. Frost DEQ, 1-26-93

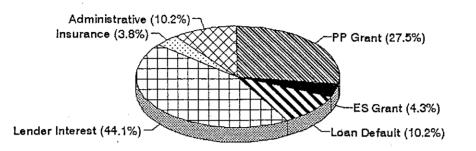


UST FINANCIAL ASSISTANCE BUDGET FORECAST
September, 1989 to June, 1995
Forecast Prepared: 5-13-92

EXPENDITURES		
Pollution Prevention (PP) Grants	\$31,569,728	55.4%
Essential Services (ES) Grants	\$4,887,500	8.6%
Loan Defaults	\$876,000	1.5%
Interest Payments to Lenders	\$6,427,861	11.3%
Insurance Premium Copayments	\$3,908,000	6.9%
Administrative Costs	\$9,307,072	16.3%
TOTAL EXPENDITURES	\$56,976,161	100.0%

Compiled By: Larry D. Frost DEQ, 1-26-93 Pie Chart 2

LAFT



UST FINANCIAL ASSISTANCE BUDGET FORECAST
September, 1989 to June, 2017
Forecast Prepared: 5-13-92

EXPENDITURES		•
Pollution Prevention (PP) Grants	\$31,569,728	27.5%
Essential Services (ES) Grants	\$4,887,500	4.3%
Loan Defaults	\$11,748,000	10.2%
Interest Payments to Lenders	\$50,701,380	44.1%
Insurance Premium Copayments	\$4,341,400	3.8%
Administrative Costs	\$11,702,760	10.2%
	~	
TOTAL EXPENDITURES	\$114,950,768	100.0%

Compiled By: Larry D. Frost DEQ, 1-26-93 4435 North Channel Avenue Portland, Oregon 97217 503/286-7460 Richard H. Nachbar Western Region Manager Environmental Affairs Boise Cascade Corporation

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January 27, 1993

HAND DELIVERED

Mr. William W. Wessinger, Chair Environmental Quality Commission 121 S.W. Salmon Street, Suite 1100 Portland, Oregon 97204

Re: Columbia River United's Petition for Rulemaking

Dear Mr. Wessinger:

Columbia River United (CRU) has petitioned the Commission to initiate a rulemaking proceeding that would establish discharge limits for chlorinated organic compounds from pulp mills, based on the Commission's determination of "best available technology economically achievable" (BAT). CRU's petition is an effort to circumvent two other ongoing administrative proceedings, one before the Commission and one before the U.S. Environmental Protection Agency (EPA), that are comprehensively considering the same issue. There is no reason to initiate yet a "third process that will add nothing; to the first two.

CRU's petition does not contend that there is any threat to the environment that would warrant its proposed rule. Rather, its petition is based solely on the Clean Water Act's requirement that industries install BAT to control effluent discharges.

EPA, however, is approaching the end of a lengthy rulemaking proceeding that is considering BAT limits for discharges of chlorinated organic compounds from pulp mills. EPA will issue a proposed rule setting national BAT limits for pulp mills in October of this year. Mr. William W. Wessinger January 27, 1993 Page 2

In addition, CRU is a party to the pulp mill contested cases currently before the Commission. In those contested cases, the Commission is considering, among other issues related to chlorinated organic compounds, mill-specific BAT limits on discharges of chlorinated organic compounds from James River II, Inc.'s Wauna Mill and Boise Cascade Corporation's St. Helens Mill. The Commission will very likely complete its consideration of these issues, with the benefit of operational data from each mill, by the end of this year.

CRU's petition offers no persuasive reason for an additional proceeding that would, at best, merely duplicate the current efforts of EPA and the Commission. Moreover, the information that it offers in support of its petition is neither particularly new nor relevant to the establishment of BAT limits for Oregon pulp mills. Only a handful of the mills listed in the petition as "totally chlorine free" are bleached kraft mills, and only one is in the United States. CRU's petition makes no effort to demonstrate how these mills are comparable to Oregon mills with respect to the factors relevant to a BAT determination, and none of the identified mills is capable of producing pulp of the same quality as the Oregon bleached kraft mills. The more expensive, less bright, and often weaker pulp produced by these mills serves a different and much smaller market that does not warrant the enormous expenditures required to produce "totally chlorine free" pulp. (The one U.S. bleached kraft mill that intends to produce pulp without chlorine, the Louisiana Pacific mill in Samoa, California, is not yet producing without chlorine and admits that it does not yet have a market for the lower-grade pulp that it intends produce without chlorine. In addition, as CRU's exhibit shows, the mill agreed to produce without chlorine in order to avoid installing an expensive biological treatment system, which virtually all U.S. mills, including Oregon mills, have long used.)

Mr. William W. Wessinger January 27, 1993 Page 3

Boise Cascade urges the Commission to adhere to its current process for considering pulp mill BAT issues and to deny the petition for rulemaking. Thank you.

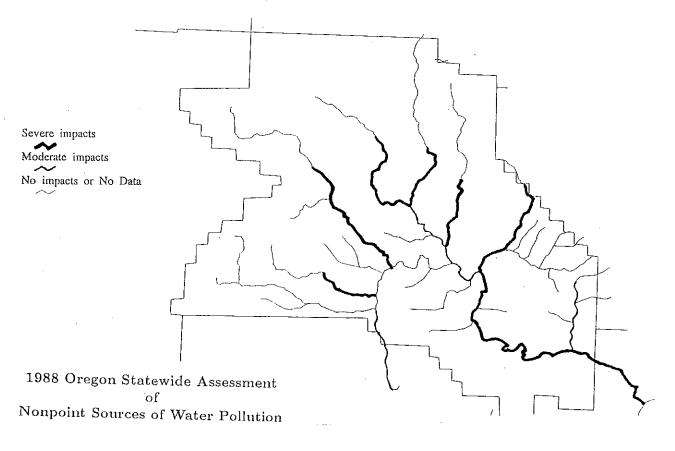
Sincerely,

Richard H. Nachbor

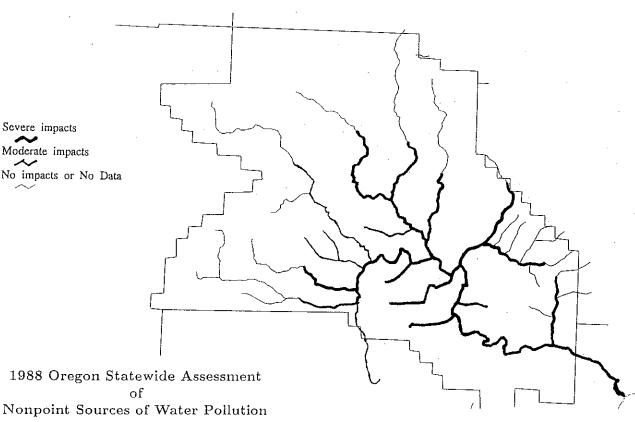
Richard H. Nachbar Western Region Environmental Manager Boise Cascade Corporation

Environmental Quality Commission Members cc: Hon. Arno H. Denecke Mr. Fred Hansen Mr. Michael Huston Mr. Larry Edelman Mr. John Bonine Mr. Curtis Fisher Mr. Peter M. Linden Mr. Richard H. Williams Mr. Jay T. Waldron Mr. William C. Carpenter Ms. Linda Williams Columbia River Inter-Tribal Fish Commission Oregon Trout Oregon Salmon Commission Oregon Rivers Council

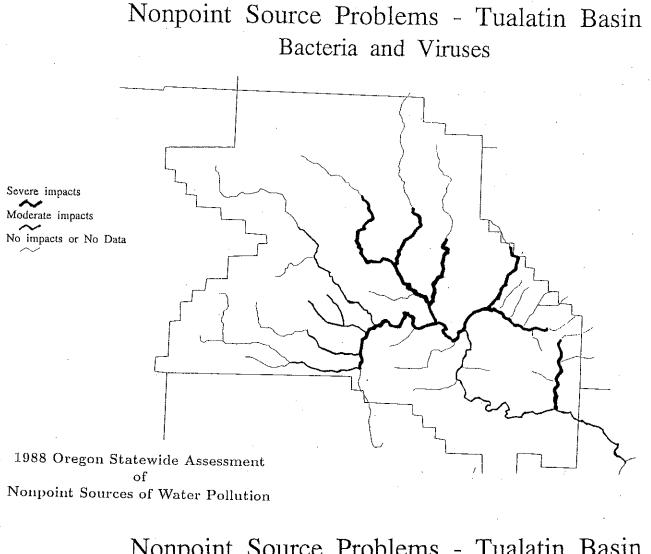
Nonpoint Source Problems - Tualatin Basin Dissolved Oxygen



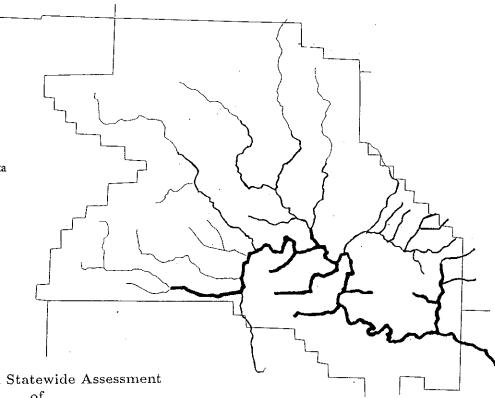
Nonpoint Source Problems - Tualatin Basin Nutrients



-1-



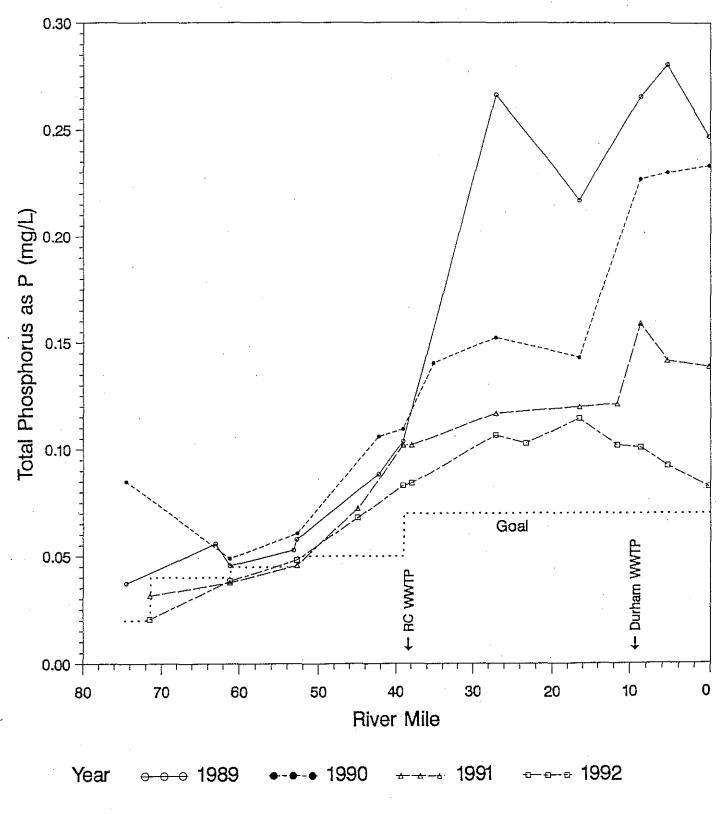
Nonpoint Source Problems - Tualatin Basin Sedimentation



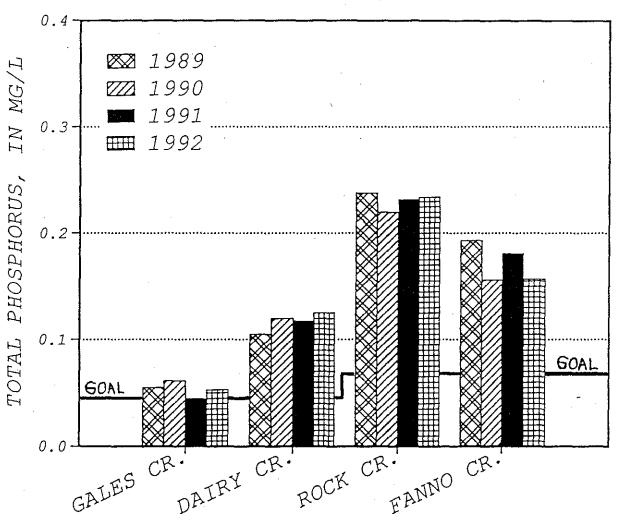
Severe impacts Moderate impacts No impacts or No Data

> 1988 Oregon Statewide Assessment of Nonpoint Sources of Water Pollution

Total Phosphorus Mean Concentrations May – October

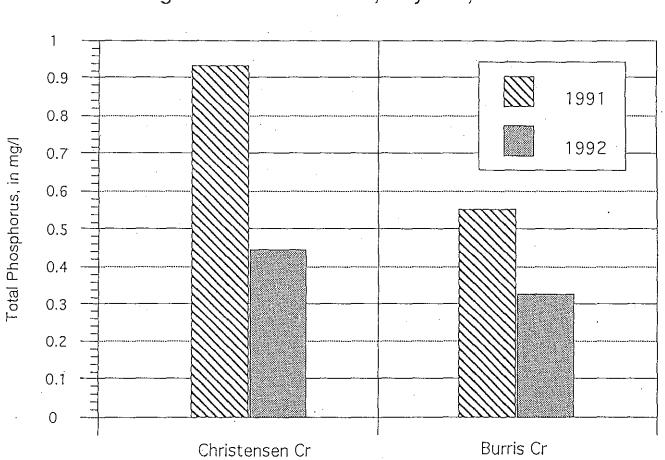


-3-



PHOSPHORUS CONCENTRATION IN FOUR TUALATIN TRIBUTARIES, MAY-OCT, 1989-92

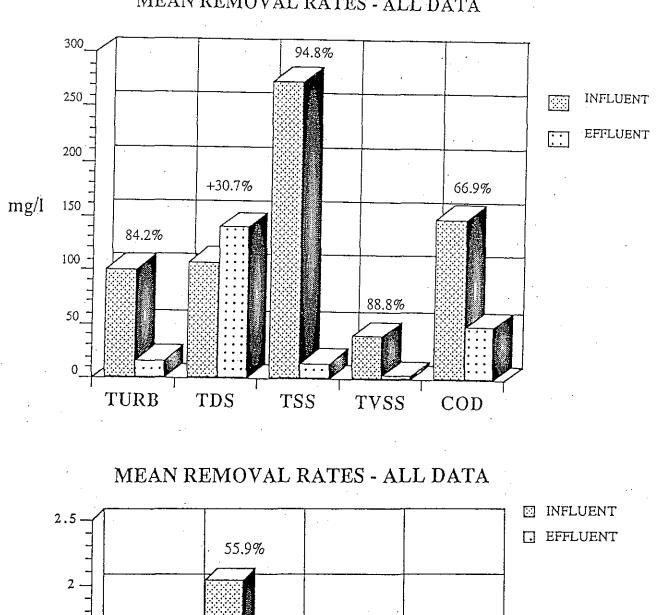
-4-



Phosphorus Concentration in Two Tualatin River Agricultural Tributaries, May-Oct, 1991-1992

-5-

COMPOST STORM WATER TREATMENT SYSTEM



+34.2%

NO3

41.6%

NH3

40.5%

T-PO4

TKN

1.5-

1

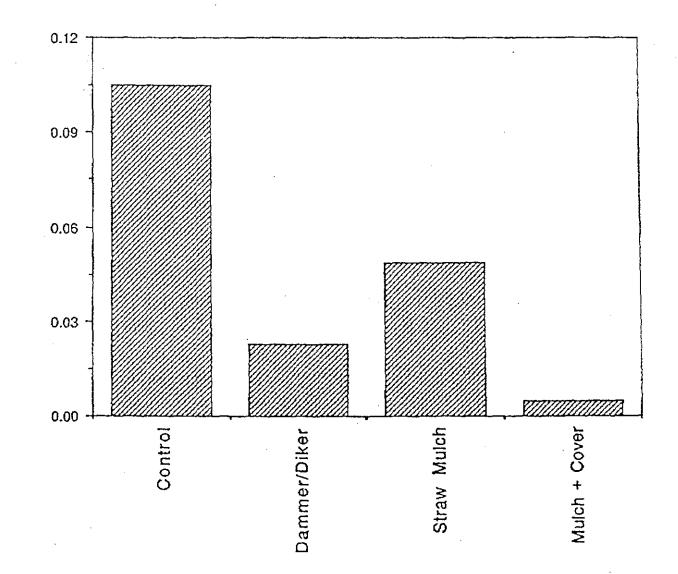
0.5-

0

mg/l

MEAN REMOVAL RATES - ALL DATA

-6-



P solution concentrations in runoff traps.

Ortho-P mg/L

-7-

SOURCE TYPE	POLLUTION SOURCE	CONTROL MEASURE	RESPONSIBILITY		PROGRAM	FUND ING SOURCE	ENFORCEMENT MECHANISM	
on Point Sources				18222827 -		==== <u>,</u>		
Urban	 Stormwater Discharge On-Site Facilities (new)	Stormwater Controls BMPs	USA/City/County USA/City/County	Yes Yes	Mandatory Mandatory	SWM Dist. Fees SWM Dist. Fees	NPDES Ordinance	
USA (Washington County)	Erosion	Erosion Controls	USA/City/County	Yes	Mandatory	SWM Dist. Fees	Ordinance	
Clackamas County	Development	Onsite Controls	USA/City/County	Yes	Mandatory	SWM Dist. Fees	Ordinance	
Multnomah County	Stream Banks	Rehabilitations	USA/City/County	Yes	Voluntary	SWM Dist. Fees	N/A	
City of Portland	Ditches (incl roads)	Convert to Grasslined	USA/City/County	Yes	Voluntary	SWM Dist. Fees	N/A	
- City of Lake Oswego	Urban Activities	Source Controls	USA/City/County	Yes	Voluntary	SWM Dist. Fees	N/A	
City of West Linn	Lawn Fertilizers	No P @ Application	USA/City/County	Yes	Voluntarý	SWM Dist. Fees	N/A	
	Streets @ Parking Lots	Sweeping	USA/City/County	Yes	Voluntary	SWM Dist. Fees	N/A	
Agriculture	CAFO	No Discharge	ODA	Yes	Vol then Mandat	Permit Fees	WPCF	
OR Dept of Agriculture	Container Nurseries	No Discharge	ODA	Yes	Vol then Mandat	Fees/GF	NPDES	
	Erosion	Erosion Controls	ODA	No	Voluntary	ASCS/Cost Share	N/A	
	Uplands	Terracing, Filters, et	C ODA	No	Voluntary	ASCS/Cost Share	N/A	
	<pre>[] Ditches (inc roads)</pre>	Grasslined	ODA	No	Voluntary	ASCS/Cost Share	N/A	
	Stream Banks	Rehabilitations	ODA	No	Voluntary	ASCS/Cost Share	N/A	
	Fertilization	Agronomic Rates	ODA	No	Voluntary	ASCS/Cost Share	N/A	
******	Irrigation 	Agronomic Rates	ODA	No	Voluntary	ASCS/Cost Share	N/A	
Forestry	Erosion	Erosion Controls	ODF	Yes	Mandatory	Fees/GF	FPA	
OR Dept of Forestry	Harvest Sites	Harvesting, roading mi	in ODF	Yes	Mandatory	Fees/GF	FPA	
	Ditches (incl. roads)	Grasslined	OD F	Yes	Mandatory	Fees/GF	FPA .	
	Stream Banks	Rehabilitation	OD F	Yes	Mandatory	Fees/GF	FPA	
	Fertilization	Agronomic Rates	OD F	Yes	Mandatory	Fees/GF	FPA	
Point Sources	 					 .		
USA Sewage Treatmt Plants	 [Sewage Treatment Plants	Alum Treatment/Irrigation	n USA	Yes	Mandatory	Sewer Fees	NPDES	



Identify Water Quality Limited Streams.
Evaluate Data.

Establish Preliminary TMDLs.

• Conduct Detailed Water Quality Assessment — Tier I, II, or III.

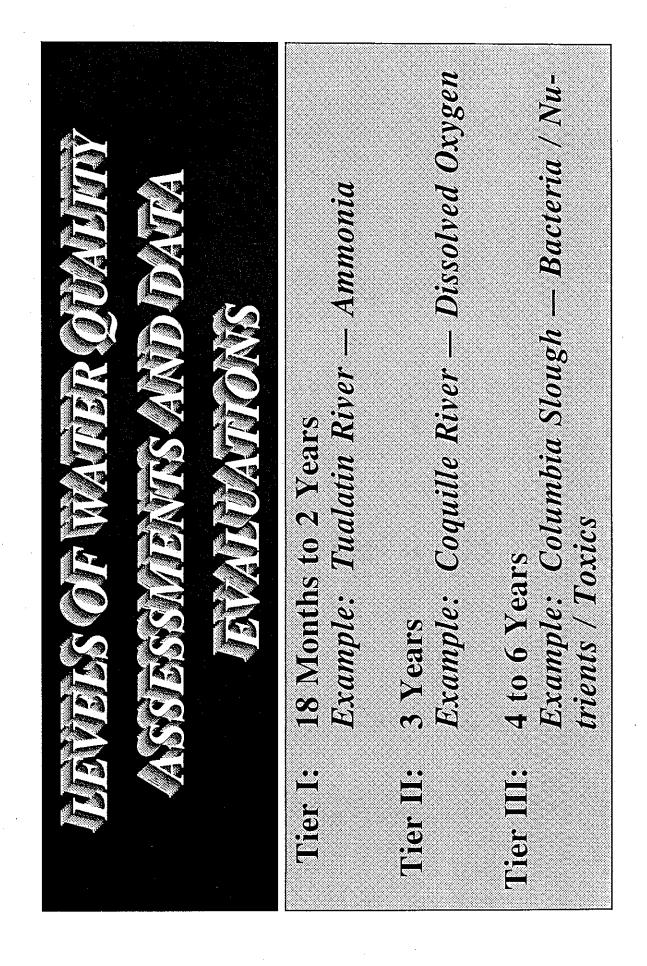
Evaluate Data.

Establish Final TMDLs.

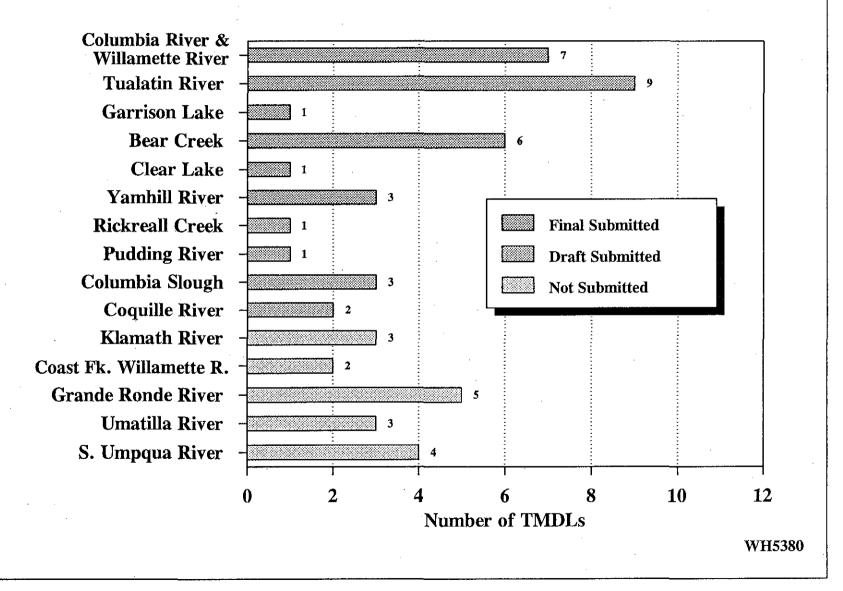
• Submit to EPA for Approval.

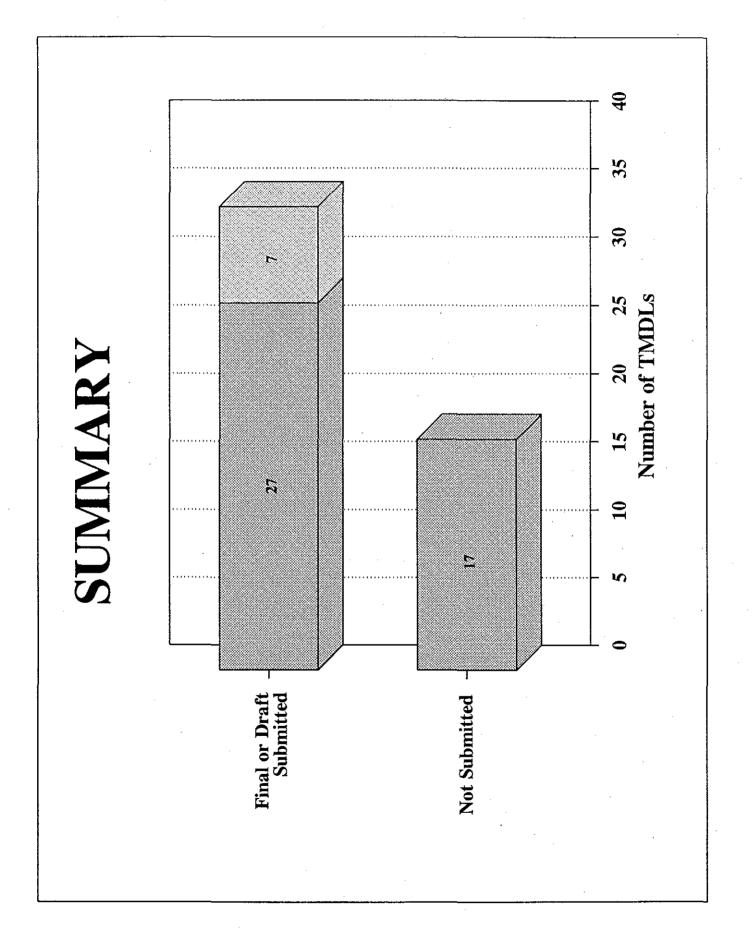
Implement TMDLS

Use TMDL in Permit Process.Use TMDL for NPS Program Plans.



TMDL PROGRAM STATUS





TMDL PROGRAM

Waterbody (Segments)	TMDL Parameter	Number of Segments Per Parameter	Submitted to EPA
Tualatin River (8)	Phosphorus	8	Yes
	Ammonia	1	Yes
Garrison Lake (1)	Phosphorus	1	Yes
	Ammonia	2	Yes
Bear Creek (2)	BOD	2	Yes
	Phosphorus	2	Yes
Clear Lake (1)	Phosphorus	1	Yes
Yamhill River (3)	Phosphorus	3	Yes
Rickreall Creek (1)	BOD	1	Yes — Draft
Pudding River (1)	BOD	1	Yes — Draft
	Bacteria	1	Yes — Draft
Columbia Slough (1)	Phosphorus	1	Yes — Draft
	Toxics	1	Yes — Draft
Coquille River (2)	BOD	2	Yes — Draft
Klamath Divor (1)	BOD	1	No
Klamath River (1)	Ammonia	2	No
Coast Fork	BOD	1	No
Willamette River (1)	Phosphorus	1	No
Columbia River & Willamette River (7)	Dioxin*	7	Yes
Grande Ronde (5)	ide Ronde (5) Phosphorus		No
Umatilla River (3)	Phosphorus	3	No
South Limpous Direct (2)	Phosphorus	3	No
South Umpqua River (3)	Ammonia	1	No
* 2,3,7,8-	TCDD — TMDL	established by EPA	A.

SA\WH5384.5

TMDL SEGMENTS

	Required by Consent Decree	
1	Garrison Lake	Phosphorus
2	Coquille River — RM 0-39	BOD
3	S. Umpqua River — RM 0-15	Ammonia
4	S. Umpqua River — RM 0-15	Phosphorus
5	S. Umpqua River – RM 15-47	Phosphorus
6	S. Umpqua River — RM 47-75	Phosphorus
7	Bear Creek — RM 0-27	BOD
8	Ashland Creek — RM 0-9	BOD
9	Bear Creek — RM 0-27	Ammonia
10	Ashland Creek — RM 0-9	Ammonia
11	Bear Creek — RM 0-27	Phosphorus
12	Ashland Creek — RM 0-9	Phosphorus
13	Yamhill River — RM 0-11	Phosphorus
14	Pudding River — RM 0-30	BOD
15	Tualatin River — RM 0-39	Ammonia
16	Tualatin River — RM 0-39	Phosphorus
17	Tualatin River – RM 39-45	Phosphorus
18	Tualatin River — RM 45-63	Phosphorus
19	McKay Creek – RM 0-12	Phosphorus
20	Dairy Creek — RM 0-11	Phosphorus
21	Beaverton Creek — RM 0-11	Phosphorus
22	Rock Creek – RM 0-13	Phosphorus
23	Fanno Creek — RM 0-14	Phosphorus
24	Umatilla River – RM 0-35	Phosphorus
25	Umatilla River — RM 35-57	Phosphorus
26	Umatilla River — RM 57-79	Phosphorus
27	Grande Ronde River — RM 82-160	Phosphorus
28	Grande Ronde River — RM 160-179	Phosphorus
29	Klamath River — RM 250-255	BOD
30	Klamath River — RM 250-255	Ammonia
31	Link River – RM 0-5	Ammonia

SA\WH5383.5

TMDL SEGMENTS (Continued)

	Segments Added Per Section 5(C) of Consent	Decree
32	Coast Fork Willamette River - RM 0-29	BOD
33	Coast Fork Willamette River – RM 0-29	Phosphorus
34	South Yamhill River — RM 0-5	Phosphorus
35	South Yamhill River — RM 5-25	Phosphorus
36	Columbia Slough — RM 0-15	Bacteria
37	Columbia Slough — RM 0-15	Phosphorus
38	Columbia Slough — RM 0-15	Toxics

	Segments Added Per 305(b) Reports	
39	Clear Lake	Phosphorus
40	North Fork Coquille – RM 0-10	BOD
41	Rickreall Creek	BOD
42	Willamette River — RM 0-147	2,3,7,8-TCDD
43	Columbia River — RM 0-86	2,3,7,8-TCDD
44	Columbia River — RM 86-120	2,3,7,8-TCDD
45	Columbia River — RM 120-203	2,3,7,8-TCDD
46	Columbia River — RM 203-218	2,3,7,8-TCDD
47	Columbia River — RM 218-247	2,3,7,8-TCDD
48	Columbia River – RM 247-309	2,3,7,8-TCDD
49	Grande Ronde State Ditch — RM 0-4	Phosphorus
50	Catherine Creek — RM 0-19	Phosphorus
51	Spring Creek	Phosphorus

SA\WH5383.5

TMDLs/WLAs/LAs Have Been Established During Permit Renewals for:

Site	Parameters with WLAs	No Discharge
McMinnville	CBOD ₅ , TSS, NH ₃ , Total-P, Chlorine	
Lafayette	Total-P	
Elgin	Chlorine (Winter)	Summer
Athena	Chlorine (Winter)	Summer
Heppner	BOD ₅ , (Summer), Chlorine (Winter)	
Ontario	Chlorine (Winter)	Summer
Adair Village	Chlorine (Winter)	Summer
Prineville	Chlorine (Winter)	Summer
Stanfield	Chlorine (Winter)	Summer
Carlton	Chlorine (Winter)	Summer
Port Orford		Annual
Bay City	Fecal Coliform (Shellfish Area)	
Fossil		Annual
USA (Rock Creek & Durham)	NH ₃ , Total-P	
Sweet Home	Chlorine	
James River	Dissolved Oxygen	

SA\WH5384.5

DRAFT

Preliminary

TMDL Development Status for Oregon's §303(d) Waters

Water Quality Limited Segment		Pollutants	Loading Capacity	TMDL Established	Submit to EPA	EPA Appro.	
North Coast Basin		mbia River M 0 - 86)	2,3,7,8-TCDD		06/90	EPA TMDL	02/91
Mid Coast Basin	Cl	ear Lake	Phosphorus		12/90	08/91	03/92
	Gar	rison Lake	Phosphorus	02/88	6/88	09/88	9/88
South Coast Basin		uille River M 0 - 39)	BOD	02/88	12/91	Winter 92/93*	
		. Coquille River M 0 - 10)	BOD	02/88	12/91	Winter 92/93*	
		Jmpqua River M 0 - 15)	Ammonia	11/87			
Umpqua Basin		Umpqua River M 0 - 15)	Phosphorus	11/87			
Compilan David		Umpqua River M 15 - 47)	Phosphorus	11/87		1	
	South Umpqua River (RM 47 - 75)		Phosphorus	11/87			
· · · · · · · · · · · · · · · · · · ·	Bear Creek (RM 0 - 27)		BOD	11/87	07/89	08/91	03/92
	Ashland Creek (RM 0 - 9)		BOD	11/87	07/89	08/91	03/92
Rogue Basin (Bear Creek	Bear Creek (RM 0 - 27)		Ammonia	11/87	07/89	08/91	03/92
Drainage)	Ashland Creek (RM 0 - 9)		Ammonia	11/87	07/89	08/91	03/92
	Bear Creek (RM 0 - 27)		Phosphorus	. 11/87	07/89	08/91	03/92
		land Creek M 0 - 9)	Phosphorus	11/87	07/89	08/91	03/92
		illamette River M 0 - 29)	BOD	08/88	Preliminary		
	C.F. Willamette River (RM 0 - 29)		Phosphorus	08/88	Preliminary		
	Willamette River (RM 0 - 147)		2,3,7,8-TCDD		06/90	EPA TMDL	02/91
	Rick	reall Creek	BOD				
Willamette Basin		Yamhill River (RM 0 - 11)	Phosphorus	08/87	06/89	08/91	03/92
	Yamhill Drainage	S. Yamhill River (RM 0 - 5)	Phosphorus	08/87	06/89	08/91	03/92
		S. Yamhill River (RM 5 - 25)	Phosphorus	08/87	06/89	08/91	03/92
	(R	Pudding M 0 - 30)	BOD	08/87	12/91	Winter 92/93*	

* Scheduled for 06/92 — delayed to place in new format and decide on policy issues.

Preliminary

Water Qua	lity Limited	Segment	Pollutants	Loading Capacity	TMDL Established	Submit to EPA	EPA Appro.
		Tualatin River (RM 0 - 39)	Ammonia	04/87	04/88	09/88	09/88
	, .	Tualatin River (RM 0 - 39)	Phosphorus	04/87	04/88	09/88	
		Tualatin River (RM 39 - 45)	Phosphorus	04/87	04/88	09/88	
	-	Tualatin River (RM 45 - 63)	Phosphorus _.	04/87	04/88	09/88	
	Tualatin Drainage	McKay Creek (RM 0 - 12)	Phosphorus	04/87	04/88	09/88	
		Dairy Creek (RM 0 - 11)	Phosphorus	04/87	04/88	09/88	
Willamette Basin (Continued)		Beaverton Creek (RM 0 - 11)	Phosphorus	04/87	04/88	09/88	
		Rock Creek (RM 0 - 13)	Phosphorus	04/87	04/88	09/88	
		Fanno Creek (RM 0 - 14)	Phosphorus	04/87	04/88	09/88	•
	(R	mbia Slough M 0 - 15)	Bacteria	08/88	12/91	Spring 93	
		mbia Slough M 0 - 15)	Phosphorus	08/88	12/91	Spring 93	
		mbia Slough M 0 - 15)	Toxics	08/88	12/91	Spring 93	
	Columbia River (RM 86 - 120)		2,3,7,8-TCDD		06/90	EPA TMDL	02/91
Sandy Basin	Columbia River (RM 120 - 203)		2,3,7,8-TCDD	· .	06/90	EPA TMDL	02/91
Deschutes Basin	Columbia River (RM 203 - 218)		2,3,7,8-TCDD		06/90	EPA TMDL	02/91
John Day Basin	(RM	umbia River [218 - 247)	2,3,7,8-TCDD	•	06/90	EPA TMDL	02/91
	Umatilla River (RM 0 - 35)		Phosphorus	04/88			
Umatilla Basin		atilla River M 35 - 57)	Phosphorus	04/88			
		atilla River M 57 - 79)	Phosphorus	04/88			
		mbia River 247 - 309)	2,3,7,8-TCDD		06/90	EPA TMDL	02/91
		e Ronde River 1 82 - 160)	Phosphorus	06/88	Summer 93	Winter 93/94	
Grande Ronde		e Ronde River [160 - 179)	Phosphorus	06/88	Summer 93	Winter 93/94	
Basilonde	(F	State Ditch M 0 - 4)	Phosphorus		Summer 93	Winter 93/94	
		erine Creek M 0 - 19)	Phosphorus		Summer 93	Winter 93/94	
	Spi	ring Creek	Phosphorus		Summer 93	Winter 93/94	
		math River (250 - 255)	BOD	04/88			
Klamath Basin	(RM	math River (250 - 255)	Ammonia	04/88			
		ink River M 0 - 5)	Ammonia	04/88			

TMDL Development Status for Oregon's §303(d) Waters

SA\WH5260.5 (1/93)

□ Rule Adoption Item

□ Action Item

X Information Item

Title:

Report to the Legislature: Status of Underground Storage Tank Financial Assistance Program (Section 62 of SB 1215)

Summary:

SB 1215 amended HB 3080 from the 1989 Legislature and established an enhanced financial assistance program for owners/operators of underground storage tanks holding motor fuel for resale. Four forms of financial assistance were established: loan guarantees, reduced interest rates on commercial loans, grants and insurance premium co-payments.

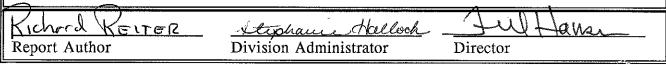
The EQC adopted temporary administrative rules to implement the program December 13, 1991 and final rules on June 1, 1992. Application forms and guidance documents for owners/operators, commercial lenders, public accountants and insurance agents have been developed and have been distributed upon request.

Intended to be funded by a 1.1 cent per gallon fee on gasoline, the program was held up by an Oregon Supreme Court review of the new fee. On December 18, 1992 the Court issued an appellate judgement that found the fee constitutionally dedicated to the Highway Trust Fund. With the Court's determination, the authority to collect the 1.1 cent assessment was repealed and the authority to collect a \$65 petroleum loading fee was established effective October 1, 1991. It is possible that there may be a subsequent legal challenge to the petroleum loading fee. Because of the Court review, and a lack of new revenue into the Fund, only five grant projects have been funded under the SB 1215 program using funds left over from the HB 3080 program.

It is the Department's opinion that the fund can meet its current obligations and debt service. The Department has developed a forecasting model and can estimate future obligations as each new project is approved. The Department will not approve new projects if future debt service for all approved projects to date cannot be met.

Department Recommendation:

Approve the report's distribution to the 67th Legislative Assembly



January 12, 1993

[†]A large print copy of this report is available upon request.



DEPARTMENT OF ENVIRONMENTAL OUALITY

REPORT TO 67TH OREGON LEGISLATIVE ASSEMBLY on CHAPTER 863, OREGON LAWS 1991 (SB 1215)

Department of Environmental Quality January, 1993

REPORT REQUIRED:

Chapter 863, Oregon Laws 1991, Section 62 (it is found compiled after ORS 466.835) requires beginning January 1, 1993, and biennially thereafter, the Department of Environmental Quality (DEQ) to report on implementation of the underground storage tank (UST) financial assistance program. Specifically, DEQ is to report on:

I. Status of the financial assistance program

II. Any substantive changes in the federal underground storage tank program

III. Oregon's proposed response to the substantive changes

IV. The financial capacity of the UST Compliance and Corrective Action Fund to meet its obligations and debt service to applicants and commercial lenders.

BACKGROUND:

In 1984, Congress passed a national program to prevent and abate groundwater contamination and public health and safety problems caused by leaks of petroleum and hazardous substances from underground storage tanks (UST). Congress provided authority for the national tank program to be administered at the state level.

In late 1988 (technical and state program approval) and early 1989 (financial responsibility), the Environmental Protection Agency (EPA) adopted rules to implement the national tank program. Compliance deadlines ranging from one to ten years were established for various parts of the program.



811 SW Sixth Avenue Portland, OR 97204-1390 (503) 229-5696 TDD (503) 229-6993 DEQ-1 SB 1215 Legislative Report January, 1993 Page 2

The insurance deadlines for smaller businesses have been moved several times in response to the lack of affordable insurance.

In its regulatory impact statement, EPA estimated that as many as 50 percent of existing businesses would have to close because of the marginal nature of their business and the relative high cost to upgrade, buy new equipment or clean up petroleum contaminated soil and groundwater. In Oregon, DEQ estimated that the impact would fall heavier on smaller businesses in rural areas of the state and that as many as 1,000 small retailers would close.

1989 LEGISLATIVE RESPONSE:

CHAPTER 1071, OREGON LAWS 1989 (HB 3080)

Concerned about the probable lack of fuel at a reasonable price in large parts of rural Oregon, the 1989 Legislative Assembly established via HB 3080 a financial assistance program to help pay the cost of site assessments, equipment to upgrade or replace tanks and to clean up petroleum contaminated soil. The program consisted of:

1. A 50%, but not to exceed \$3,000, site assessment reimbursement grant

2. An 80%, but not to exceed \$64,000, loan guarantee program

3. A 7.5% fixed interest rate on a commercial loan, with the lender getting the difference between the 7.5% fixed rate and a commercial lending rate in the form of an Oregon Tax Credit.

Based on anticipated revenue, DEQ estimated 1050 site assessment grants at \$3,000 each and 200 loan guarantee and interest rate subsidy projects could be funded. Table 1 is a summary of the financial assistance disbursed to HB 3080 projects through October, 1991. Appendix 1-1 is a list of site assessment grant projects. Appendix 1-2 is a list of projects that received a loan guarantee and interest rate subsidy. Appendix 1-3 is a list of projects receiving only an interest rate subsidy.

TABLE 1 - Summary of disbursements through October, 1991				
Type of Assistance	Number of Projects	Amount of Financial Assistance		
Site assessment grants	63	\$167,356		
Loan guarantees	33	\$1,573,488 (amount guaranteed)		
Loan default reserve	33	\$268,969		
Loan defaults	0	\$0		
Interest rate subsidies	46	 \$308 (amount paid to date) \$881,815 (estimated yet to be disbursed to these projects) 		

In testimony to the 1991 Legislative Assembly, DEQ reported that the level of financial assistance was insufficient to encourage lenders to determine that applicants had the creditworthiness to repay large loans, even with the subsidy of 7.5%. In addition, many potential applicants were reluctant to spend money on site assessments; they preferred to wait and invest that money in tank removals and do the site assessment at the time of tank removal. The 1991 Legislative Assembly responded by enacting SB 1215 as described in detail later in this report.

HB 3080 PROGRAM FUNDING

HB 3080 raised funds for the program by establishing a \$10 UST regulatory fee (commonly called a "petroleum loading fee") on each load of petroleum withdrawn from a terminal. Table 2 is a summary of the fund as of October, 1991 which was the sunset date for HB 3080 and the start date for SB 1215.

TABLE 2 - Summary of the Fund as of October, 1991				
Activity	Amount			
Revenue	\$4,221,056			
Program expenditures	\$167,664			
Administrative expenses	\$916,586			
Balance forward to SB 1215 program	\$3,136,806 (1)			
(1)Projected obligations reserved within the Fund				
Loan default reserve	\$268,969			
Interest rate subsidy reserve	\$881,815			

1991 LEGISLATIVE RESPONSE:

CHAPTER 863, OREGON LAWS 1991 (SB 1215)

Because HB 3080 was not providing sufficient financial assistance to owners/operators of USTs, insufficient incentives to commercial lenders and because of continued concern about fuel availability at reasonable prices throughout the state, the 1991 Legislative Assembly amended HB 3080 with the passage of SB 1215. The SB 1215 financial assistance program consisted of:

1. An 80%, but not to exceed \$80,000, loan guarantee program.

(NOTE: THE FOLLOWING THREE FORMS OF ASSISTANCE VARY DEPENDING ON NUMBER OF TANKS, FINANCIAL NEED AND LOCATION.)

2. A 7.5, 5.0, 3.0 or 1.5% fixed interest rate commercial loan, with the lender getting the difference between the fixed rate and a commercial lending rate, payable quarterly to the lender.

3. A 50%, not to exceed \$50,000, pollution prevention grant or an 85%, not to exceed \$85,000, essential services grant.

4. A 50, 75 or 90% co-payment on the annual premium for environmental impairment liability insurance.

Based on anticipated revenue, DEQ estimated that 1,800 projects could receive some level of financial assistance. Table 3 is a summary of the financial assistance disbursed to all HB 3080 and SB 1215 projects through November, 1992. Appendix 2-1 is a list of the <u>additional</u> site assessment grant projects that received financial assistance since October, 1991. Appendix 2-2 is an additional project with a loan guarantee and interest rate subsidy. Appendices 2-3 and 2-4 are the projects that received essential service grants and insurance premium co-payment assistance.

TABLE 3 - S	TABLE 3 - Summary of disbursements through November, 1992					
Type of Assistance	Number of Projects	Amount of Financial Assistance				
Site assessment grants	85	\$227,508				
Loan guarantees	34	\$1,574,370 (amount guaranteed)				
Loan default reserve	34	\$314,874				
Loan defaults	0	\$0				
Interest rate subsidies	47	 - \$58,237 (disbursed to date) - \$815,822 (estimated yet to be disbursed to these projects) 				
Essential Service grants	5	 - \$256,015 (disbursed to date) - \$134,558 (estimated yet to be disbursed to these projects) 				
Insurance premium co- payments	5	 \$2,615 (disbursed to date) \$33,037 (estimated yet to be disbursed to these projects) 				

SB 1215 PROGRAM FUNDING

SB 1215 was intended to raise funds for the program by establishing a new 1.1 cent per gallon UST assessment on motor fuel going into underground storage tank for resale. No revenue was collected, however, as explained in the next section. Table 4 is a current summary of the fund from inception through November, 1992 based upon revenue received from the \$10 loading fee collected under HB 3080 from September 1, 1989 through September 30, 1991.

TABLE 4 - Summary of the Fund through November, 1992				
Activity	Amount			
Revenue	\$4,921,568			
Program expenditures	\$545,067			
Administrative expenses	\$1,992,726			
Fund balance as of September, 1992	\$2,383,775 (1)			
(1)Projected obligations reserved within the Fund				
Loan default reserve	\$314,874			
Interest rate subsidy reserve	\$815,822			
Essential services grants	\$134,558			
Insurance premium co-payments	\$33,037			

1.1 CENT PER GALLON UST ASSESSMENT

Effective October 1, 1991, a 1.1 cent per gallon UST assessment replaced the \$10 UST regulatory fee collected under HB 3080. On October 4, 1991 the Automobile Club of Oregon and A & B Automotive and Towing Service, Inc. petitioned the Oregon Supreme Court for a review of the 1.1 cent per gallon UST Assessment vis-a-vis Article IX, Section 3a of the Oregon Constitution (dedication of motor fuel taxes to the Highway Trust Fund). The filing of a petition stayed the collection of any additional revenue for the program. On October 29, 1992 the Oregon Supreme Court filed their opinion that the UST assessment was a tax and the proposed uses are constitutionally impermissible. The opinion became effective on December 18, 1992.

On December 18, 1992, by operation of SB 1215, the authority to collect the 1.1 cent UST assessment was repealed and in its place, authority to collect a \$65 UST regulatory fee (commonly referred to as petroleum loading fee) was established. The date of obligation for the UST regulatory fee was October 1, 1991.

On December 3, 1992 the Oregon Petroleum Marketers Association, a non-profit trade association of petroleum distributors and retailers filed a letter request with the Department of Revenue (DOR) to:

1. Establish a \$5 UST regulatory fee for the period October 1, 1991 to January 31, 1993.

2. From February 1, 1993 forward, establish a two-tiered UST regulatory fee - \$32.50 for loads less than 3,999 and \$65 for loads greater than \$4,000

As of the date this report was being prepared, the DOR, DEQ and the Attorney General's office were studying the authority within SB 1215 for administratively adjusting the \$65 petroleum loading fee. Final conclusions were not available as this report was completed.

On December 30, 1992, a second petition was filed with the DOR requesting:

1. A refund of all petroleum loading fees paid by petitioners since the inception of the fees established in 1989 under the authorities in HB 3080 (\$10 UST regulatory fee), HB 3515 (\$10 petroleum loading fee) and SB 1215 (\$65 UST regulatory fee).

2. A petition for a declaratory ruling on the constitutionality of the various loading fees established under HB 3080, HB 3515 and SB 1215.

3. A request for a stay of assessment of taxes, and

4. A request for a stipulated order for and expedited review.

The petitioners names are confidential according to the statutes applicable to DOR. As this report was being prepared, a response to this petition was also pending an evaluation by the DOR and the Attorney General's Office.

PROGRAM IMPLEMENTATION

Even though a petition was filed on October 4, 1991, DEQ proceeded to develop the program's basic rules and policies anticipating an expedited review of the case by the Oregon Supreme Court. With the rules and policies developed, program implementation would be able to proceed immediately upon a Court determination based either on the primary revenue source (1.1 cent per gallon on gasoline delivered to an underground storage tank) or the backup fee (\$65 petroleum loading fee on all loads of petroleum withdrawn from a storage terminal).

SB 1215 required potential applicants for financial assistance to submit a "Letter of Intent" by April 1, 1992. DEQ received 1,677 by the deadline and an additional 13 after the deadline. SB 1215 also required potential applicants to file a "Consent Agreement" by October 1, 1992. DEQ received 1,269 by the deadline and 18 after the deadline. Appendix 3 is a list of all facilities submitting a Letter of intent listed statewide by zip code. The far right three columns list the date DEQ received the Letter of Intent (LOI), Consent Agreement (CA) and the application (APP) for financial assistance. Most facilities have not submitted an application pending notification from DEQ that a revenue source is available to fund the program.

There are several reasons for 413 fewer Consent Agreements being received than Letter of Intents, including: not being an eligible facility, not meeting the financial needs test, a business decision to permanently close, and in some cases just forgetting to send the consent agreement in. DEQ is continuing to clarify the status with these 413 sites.

DEQ has also received 80 applications for financial assistance. Based on limited available funds carried forward from HB 3080, DEQ has approved construction of five essential service grant projects (see Appendix 2-3) that are in various stages of construction. DEQ has also certified, but not yet approved, construction of another four grant projects that plan to start construction in the spring when the weather improves. Their final approval is also dependent on money being available in the fund.

As required by SB 1215, DEQ appointed the following persons to a Financial Assistance Advisory Committee to assist DEQ in adopting rules and developing the administrative details of the program:

* Public and Chair - Harvey Rogers, Preston, Thorgrimson, Shidler, Gates and Ellis

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- * Public Joe Gilliam, National Federation of Independent Business
- * Petroleum marketers David Harris, Harris Transportation
- * Petroleum suppliers Brian Doherty, Miller, Nash, Wiener, Hager and Carlsen
- * Gasoline Dealers Peggy Manning, Environmental Consultant
- * Agricultural cooperatives Rick Jacobsen, Wilco Coop
- * Commercial lenders Terry Tracy, Key Bank
- * Service Provider Craig Spainhower, CJ Excavating
- * Equipment manufacturer Greg Miller, Northwest Pump

The Committee met monthly and helped write the financial assistance rules and assisted in developing the financial assistance application and its guidance documents.

On June 1, 1992, the Environmental Quality Commission adopted final rules to administer the financial assistance program. In addition, DEQ developed the following documents to implement the program:

- * a general overview of the financial assistance program
- * the application form
- * a help manual for filing out the application form
- * an accountant's guide for calculating financial need
- * a lender's guide for the loan guarantee and interest rate subsidy programs
- * an insurer's guide for the insurance premium co-payment program
- * two fact sheets how to select a contractor and how to select an environmental consultant.

DEQ installed a 1-800-742-7878 UST HELPLINE (a message recorder with 24 hour response) to receive requests for printed material or technical assistance by phone. Since its implementation DEQ has mailed 10,591 copies of rules, application forms, newsletter and technical bulletins including specifically:

Publication or Document	Number Sent	
HB 3080 grant application	14	
UST tax credit application	27	
SB 1215 financial assistance application	1,395	
Technical rules	403	
Cleanup rules	284	
HB 3080 financial assistance rules	178	
UST contractor/supervisor rules	203	
SB 1215 financial assistance rules	100	
UST contractor license applications	391	
UST supervisor exam packets	467	
Decommissioning packets	819	
Heating oil decommissioning packets	133	

PROGRAM STAFFING

Because of the Oregon Supreme Court review of the 1.1 cent UST assessment, DEQ filled only 12 of the 37 financial assistance positions approved by the 1989 and 1991 legislature. These positions were used to write the rules, develop the application and related materials, operate the HELPLINE, implement the Letter of Intent and Consent Agreement requirements, review applications, and oversee construction of the HB 3080 and SB 1215 projects.

1993 LEGISLATIVE REPORT:

I. STATUS OF FINANCIAL ASSISTANCE PROGRAM UNDER SB 1215

See Discussion under 1991 LEGISLATIVE RESPONSE

II. ANY SUBSTANTIVE CHANGES IN THE FEDERAL UST PROGRAM

During this biennium, EPA made only one substantive change to the federal UST program. On December 16, 1991 EPA extended the financial responsibility (i.e. environmental liability insurance) deadline for owners/operators of 1 to 12 tanks from October 1, 1991 to December 31, 1993. In this same rulemaking, EPA announced its intent to develop a self insurance test for local government and publish the rules for local government by December 31, 1993. The impact in Oregon was to delay when Oregon's smaller businesses and local government would have to comply with the financial responsibility requirements.

III. OREGON'S RESPONSE TO SUBSTANTIVE FEDERAL CHANGES

To date, Oregon has not adopted financial responsibility rules for owners/operators with 1 to 12 tanks or for local government. It is DEQ's intent to adopt equivalent financial responsibility rules in December, 1993 unless EPA again adjusts these compliance deadlines.

IV. FINANCIAL CAPACITY OF THE UST COMPLIANCE AND CORRECTIVE ACTION FUND TO MEET ITS OBLIGATIONS AND DEBT SERVICE

To date, the only revenues placed into the UST Compliance and Corrective Action Fund were receipts from the HB 3080 \$10 loading fee between September 1, 1989 and September 30, 1991 and interest earnings on any current balance in the fund. Table 4 above is a summary of the Fund's status as of December 1, 1992. DEQ has developed a forecast model to predict future interest rate obligations to commercial lenders. That obligation is currently estimated at \$815,822. DEQ has created a loan default reserve assuming a 20 percent business failure rate which is the maximum failure rate experienced by the Small Business Administration for SBA guaranteed loans to the service station industry. Although no defaults have been reported to date, the current loan default reserve is \$314,874. Lastly, DEQ estimates \$134,558 still to be paid in the form of grants and \$33,037 in insurance premium co-payments on UST projects currently approved for construction.

DEQ estimates its administrative cost at \$385,000 from December 1, 1992 through June 30, 1993.

With a current fund balance of \$2,809,224 on December 1, 1992 and monthly interest earnings of

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about \$13,000, it's DEQ's opinion that the Fund can meet all its outstanding obligations and debt service. In addition, DEQ can maintain a minimal staff to insure an immediate startup to the program when revenue becomes available.

RECOMMENDATIONS FOR LEGISLATIVE CHANGES:

Because the program was delayed by over a year pending a decision by the Oregon Supreme Court on the Automobile Club of Oregon petition, DEQ recommends the following amendments to Chapter 863, Oregon Laws 1991:

1. Reopen the Letter of Intent/Consent Agreement window of opportunity to apply for financial assistance until December 31, 1993 to give potential eligible owners/operators one final opportunity to state their intent.

2. Extend the construction work deadline from December 31, 1994 to September 30, 1996.

3. Extend the insurance premium co-payment program for Tier 2 projects until December 31, 1995; Tier 3 projects until December 31, 1996 and Tier 4 projects to December 31, 1998

4. Allow local government agencies and municipalities such as Port Districts, Airport Districts or Fire Districts that retailed motor fuels prior to January 1, 1993 to be eligible for financial assistance without having to meet the financial needs test.

5. Clarify the requirement for an essential services grant applicant entering into a mortgage lien agreement when the applicant is not the property owner.

APPENDIX 1 - 1

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ID	FACILITY NAME	FACILITY ADDRESS	CITY	ZIP	COUNT
8177	CORVALLIS EXXON	FACILITY ADDRESS 480 S.W. 4TH 1841 MAIN (P.O. BOX 430) 1215 S. HOLLADAY DR. 75719 ROCK CREST ST. 75754 ROCK CREST ST. 585 NEWMARK STREET 480 LAMONTA ROAD 500 W. THIRD ST. PRINEVILLE AIRPORT 19745 BAKER ROAD 516 S.W. 5TH 612 S. FIFTH ST. 847 S. 6TH ST. 530 CASCADE P.O. BOX 8000 912 S.E. STEPHENS ST. 100 E. MAIN ST. HIGHWAY 20 1995 12TH ST. 348 N. RIVERSIDE 705 STEWART AVE. 8380 HWY 62 1100 BARNETT 107 MAIN, W. 324 N.E. "E" ST. 780 UNION AVENUE 109 GALICE ROAD HWY 70 & 2ND ST. HWY 97 N & 422 S E. FRONT SIREET/P.O. BOX 552 32959 VAN DUYN RD. 544 WEST 7TH 1395 HWY. 99 N. 6085 WEST 11TH AVE. 2585 RIVER ROAD 66 N. MILL 514 HWY. 101 SOUTH 85039 HWY. 101 SOUTH 85039 HWY. 58 1517 N. COAST HIGHWAY 235 SOUTH OLD SALEM HWY / I-5 EXIT 211 2ND STREET 511 S.W. 33RD ^H 2795 MARKET STREET N.E. 3510 RIVER ROAD N.E. 686 N. 2ND ST. 104 W STARR	CORVALLIS	97330	RENTON
5264	RIDENOUR OIL CO. INC.	1841 MAIN (P.O. BOX 430)	PHILOMATH	07370	RENTON
1013	CHEVRON ILS A INC 95545	1215 S HOLLADAY DR	SEACIDE	07178	CLATCOD
6109	PAINIER BD	75710 POCK OPECT OF		070/.0	COLUMBT
6710		7575% DOCK CREST ST.	RAINIER RAINIER	91040	COLUMBI
6175	DRINE DE OPECON SERVICE STATIONS	595 NELWARK CREDIT	KAINIEK	97040	LOLUMBI
0133	OVERALL DETROLEUM CO	JOJ NEWMARK SINEEI	COOS BAT	97420	COOS
0220	UVERALL PETROLEUM LU.	460 LAMONTA KUAD	PRINEVILLE	97754	CROOK
0000	THIRD STREET SHELL	SSU W. THIRD ST.	PRINEVILLE	97754	CROOK
228	CROOK COURTY PRINEVILLE AIRPORT	PRINEVILLE AIRPORT	PRINEVILLE	97754	CROOK
3637	DESCHUTES COUNTRY STORE, INC.	19745 BAKER ROAD	BEND	97702	DESCHUT
2467	BYRAMS CHEVRON, INC.	516 S.W. 5TH	REDMOND	97756	DESCHUT
6810	PLUM' FIERCE	612 S. FIFTH ST.	REDMOND	97756	DESCHUT
6696	CENTRAL OREGON IRRIGATION DISTRICT	847 S. 6TH ST.	REDMOND	97756	DESCIIUT
5332	SISTERS GENERAL STORE	530 CASCADE	SISTERS	97759	DESCIUT
4253	BLACK BUTTE RANCH CORPORATION .	P.O. BOX 8000	BLACK BUTTE RANC	97759	DESCHUT
147	MCCULLUM'S TEXACO SERVICE, INC.	912 S.E. STEPHENS ST.	ROSEBURG	97470	DOUGLAS
7184	MAINSTOP MINI MARKET & TEXACO INC.	100 E. MAIN STC	JOHN DAY	97845	GRANT
6933	RILEY STORE & GARAGE	HIGHWAY 20	RILEY	97758	HARNEY
3522	HOOD RIVER SUPPLY ASSOC.	1995 12TH ST.	HOOD RIVER	97031	HOOD RI
6523	PANOCO, INC	348 N. RIVERSIDE	MEDFORD	97501	JACKSON
5241	STEWART AVE. TEXACO	705 STEWART AVE.	MEDFORD	97501	JACKSON
2556	NORTHROP, EARL	8380 HWY 62	WHITE CITY	97503	JACKSON
10083	DAVE'S MOBIL	1100 BARNETT	MEDFORD	97504	JACKSON
8831	EAGLE POINT CHEVRON	107 MAIN, W.	EAGLE POINT	97524	JACKSON
6267	ASTRO #219	324 N.E. "E" ST.	GRANTS PASS	97526	JOSEPHI
9187	FAIRGROUNDS TEXACO	780 UNION AVENUE	GRANTS PASS	97527	JOSEPHI
8842	C & D MARKET	109 GALICE ROAD	MERLIN	97532	JOSEPHI
9909	BONANZA MINI MART & SHELL	HWY 70 & 2ND ST.	BONANZA	97623	KLAMATH
1174	CLOUGH OIL CO CARDLOCK	HWY 97 N & 422 S	CHILOQUIN	97624	KLAMATE
6120	FRANKO #44	E. FRONT STRFET/P.O. BOX 552	MERRILI	97633	KLAMATI
9208	COBURG TEXACO	32959 VAN DUYN RD	FUGENE	97401	LANE
3002	CITY CENTER CAR WASH INC	544 VEST 7TH	FUGENE	07601	LANE
6444	MERDITT TRIAN INC	1305 HUY 90 N	FUGENE	07/ 02	LANE
718	CDEENHIII ADCO	KORS VEST 11TH AVE	FUGENE	07602	LANE
5004	CALCARILL ARCO	2595 DIVER DOAD	EUGENE	07/0/	
2770	CRECUELL CONVERCIAL CEDVICE INC	COD RIVER RUAD	CDECKELL	07/04	
2133	CRESWELL COMMERCIAL SERVICE, INC.	DO N. MILL E1/ HUX 101 COUTH		97460	
0100	FLUKENCE AKLU		FLORENCE	97439	LANE
4089	K-G-S UNE STUP MARKET	7/9/ CATEVAY	CODINCELEID	77437	
0742	PANUCU, INC.	75710 MUX 50	SPRINGFIELD	91411	LANE
0437	PLEASANT HILL TEXALU	1517 N COAST RICHAR	SPRINGFIELD	9(4(1	LANE
9582	KUN'S MUBIL LAK WASH	TOTA N. LUAST MIGHWAT	NEWPUKI	07700	LINCOLN
8504	MID-STATE PETROLEUM CARDLOCK	255 SUUTH OLD SALEM NWT / I-5 EXIT	ALBANT	97321	LINN
6960	MID STATE PETROLEUM	ZII ZNU SIREEL.	RALSET	97348	LINN
5870	ONTAKIO MUNICIPAL AIRPORT	DOI S.W. DORU B	UNTARIU	97914	MALHEUR
6108	U.A.K.S.	ZIYO MARKET SIKEEL N.E.	SALEM	97301	MARION
5619	MERRITT TRUAX #1, INC.	3510 RIVER ROAD N.E.	SALEM	97303	MARION
3611	TRUAX TIRE STORES	686 N. 2ND ST.	JEFFERSON	97352	MARION
	WILHELM TRUCKING CO.	3250 N.W. ST. HELENS RD.	PORTLAND		MULTNOP
	J & H BP SERVICE	6215 N.W. ST. HELENS RD.	PORTLAND	· · · ·	MULTNOP
	ASTRO #203	420 S.E. 122ND	PORTLAND		MULTNOM
9339	BARBUR BLVD. EQUIPMENT RENTALS	8205 SW BARBUR BLVD.	PORTLAND	97219	MULTNOM
1105	UNOCAL 5958	8510 S.W. TERWILLIGER	PORTLAND	97219	MULTNOM
1077	ASTRO #215	11010 S.E. MCLOUGHLIN	MILWAUKIE	07222	MULTNOM

Site Assessment Grants Approved Through October 1991

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FACILITY ID	FACILITY NAME	FACILITY ADDRESS	CITY	ZIP	COUNTY
6216 144 1499 9081 4295 3164 1605	PRIESTLEY OIL & CHEMICAL CO. ASTRO QUIK MART #206 OATS, RICHARD TRAPP'S THE DALLES YACHT CLUB FARMINGTON TEXACO WEYERHAEUSER SECONDARY FIBER REGGIE'S SHELL FORT HILL TEXACO	2429 N. BORTHWICK AVE. 1111 N.W. 21ST 595 E. MAIN 2702 EAST 2ND BOAT BASIN 13660 S.W. FARMINGTON RD. 5505 SW WESTERN AVENUE 150 N. YAMHILL 25715 HIGHWAY 22 & 18	PORTLAND MONMOUTH THE DALLES THE DALLES BEAVERTON BEAVERTON CARLTON	97228 97361 97058 97058 97005 97075 97075 97111	WASCO

63 rows selected.

APPENDIX 1 - 2

Tue Jan 1∠

Loan Guarantees With Interest Rate Subsidy Payments

page 1

FACILITY

ID	FACILITY NAME	FACILITY ADDRESS 1702 MAIN ST. 496 CAMPBELL ST. 93770 E. HWY 26 16560 S. RAMSBY RD. 9138 S.E. FOSTER AVENUE 260 COLUMBIA RIVER HWY 490 BRIDGE ST. 5092 BOAT BASIN DRIVE 1025 SOUTH ELLENSBURG 516 S.W. 5TH FIR & CASCADE ST. 203 S.W. 4TH EXIT 86 I-5 23873 N. UMPQUA HWY. 596 N. BROADWAY 425 WA,NA,PA ST. 3398 ODELL HWY. 301 N CENTRAL AVE 705 STEWART AVE. 936 S. CENTRAL 1765 SISKIYOU BLVD. 2035 SW BRIDGE STREET 66 N. MILL 85039 HWY. 101 SOUTH 13298 HWY. 36 42840 MCKENZIE HIGHWAY 1517 N. COAST HIGHWAY 1517 N. COAST HIGHWAY 104 W STARR 5727 S.E. POWELL BLVD. 9 S.E. 82ND AVENUE 363 N. MAIN STREET RT. 1, BOX 285-A 7200 SW BEAVERTON-HILLSDALE HWY.	CITY	ZIP	COUNTY
186	BAKER VALLEY CHEVRON	1702 MAIN ST.	BAKER	97814	BAKER
1146	GILES, DON	496 CAMPBELL ST.	BAKER	97814	BAKER
2712	C.J.'S ALPINE SERVICES INC.	93770 E. HWY 26	GOVERNMENT CAMP	97028	CLACKAMAS
9249	DICKEY PRAIRIE STORE	16560 S. RAMSBY RD.	MOLALLA	97038	CLACKAMAS
1919	FOSTER MOBIL	9138 S.E. FOSTER AVENUE	PORTLAND	97266	CLACKAMAS
2832	CLATSKANIE MINI MART	260 COLUMBIA RIVER HWY	CLATSKANIE	97016	COLUMBIA
5648	MINI MART OF VERNONIA	490 BRIDGE ST.	VERNONIA	97064	COLUMBIA
9324	DAVEY JONES LOCKER	5092 BOAT BASIN DRIVE	CHARLESTON	97420	COOS
257	HOWARD'S SHELL SERVICE	1025 SOUTH ELLENSBURG	GOLD BEACH	97444	CURRY
2467	BYRAMS CHEVRON, INC.	516 S.W. 5TH	REDMOND	97756	DESCHUTES
808	SISTERS OIL CO.	FIR & CASCADE ST.	SISTERS	97759	DESCHUTES
1051	CANYON TEXACO	203 S.W. 4TH	CANYONVILLE	97417	DOUGLAS
570	QUINES CREEK TEXACO	EXIT 86 I-5	GLENDALE	97442	DOUGLAS
1234	IDLEYLD TRADING POST	23873 N. UMPQUA HWY.	IDLEYLD PARK	97447	DOUGLAS
10049	SAM'S SERVICE	596 N. BROADWAY	BURNS	97720	HARNEY
8171	CASCADE LOCKS SHELL	425 WA,NA,PA ST.	CASCADE LOCKS	97014	HOOD RIVER
241	CLEM'S COUNTRY STORE	3398 ODELL HWY.	ODELL	97044	HOOD RIVER
6295	DOWNTOWN TEXACO	301 N CENTRAL AVE	MEDFORD	97501	JACKSON
5241	STEWART AVE. TEXACO	705 STEWART AVE.	MEDFORD	97501	JACKSON
1713	MEDFORD FUEL	936 S. CENTRAL	MEDFORD	97501	JACKSON
2435	GUTHMILLER'S EXXON #9291	1765 SISKIYOU BLVD.	ASHLAND	97520	JACKSON
8603	JENKINS MARKET	2035 SW BRIDGE STREET	GRANTS PASS	97526	JOSEPHINE
2135	CRESWELL COMMERCIAL SERVICE, INC.	66 N. MILL	CRESWELL	97426	LANE
4089	K-G'S ONE STOP MARKET	85039 HWY. 101 SOUTH	FLORENCE	97439	LANE
285	KELLY'S MARKET	13298 HWY, 36	SWISSHOME	97480	LANE
9447	GARDNER'S LEABURG STORE	42840 MCKENZIE HIGHWAY	LEABURG	97489	LANE
9582	RON'S MOBIL CAR WASH	1517 N. COAST HIGHWAY	NEWPORT	97365	LINCOLN
9754	FAST STOP GAS/BP	104 W STARR	SUBLIMITY	97385	MARION
1917	POWELL BP	5727 S.E. POWELL BLVD.	PORTLAND	-97206	MULTNOMAH
1921	82ND AVE BP	9 S.E. 82ND AVENUE	PORTLAND	97215	MULTNOMAH
5198	EMERY'S TEXACO	363 N. MAIN STREET	UNION	97883	UNION
1908	STALEY'S JUNCTION FOOD & FUEL	RT. 1, BOX 285-A	BANKS	97106	WASHINGTON
10527	D DI SERVICE STATION	7200 OU DEAVEDTON-UTLICDALE UNV	DODTI AND	07225	UASHINGTON

33 rows selected.

APPF DIX 1 - 3

Tue Jan 12

Reduced Interest Rate Payments Only

FACILITY ID	FACILITY NAME	FACILITY ADDRESS		ZIP COUNTY
642 3637 6810 3465 9208	THIRD STREET SHELL RED CARPET CAR WASH DESCHUTES COUNTRY STORE, INC. PLUM' FIERCE BP SERVICE STATION COBURG TEXACO PLEASANT HILL TEXACO	550 W. THIRD ST. 1144 N.E. 3RD 19745 BAKER ROAD 612 S. FIFTH ST. 1847 DIAMOND LAKE BLVD. 32959 VAN DUYN RD. 35310 HWY. 58	PRINEVILLE BEND BEND REDMOND ROSEBURG EUGENE SPRINGFIELD	97754 CROOK 97701 DESCHUTES 97702 DESCHUTES 97756 DESCHUTES 97470 DOUGLAS 97401 LANE 97477 LANE
6960 9339 5724 1499	HIGHWAY 20 CARDLOCK MID STATE PETROLEUM BARBUR BLVD. EQUIPMENT RENTALS PRIESTLEY OIL & CHEMICAL CO. TRAPP'S FORT HILL TEXACO	4195 SANTIAM HWY 211 2ND STREET 8205 SW BARBUR BLVD. 2429 N. BORTHWICK AVE. 2702 EAST 2ND 25715 HIGHWAY 22 & 18	ALBANY HALSEY PORTLAND PORTLAND THE DALLES WILLAMINA	97321 LINN 97348 LINN 97219 MULTNOMAH 97227 MULTNOMAH 97058 WASCO 97396 YAMHILL

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13 rows selected.

APPENDIX 2 - 1

Tue Jan 12

Site Assessment Grants Approved November 1991 Through November 1992

ACILITY ID	FACILITY NAME	FACILITY ADDRESS	CITY	7 I P		
2107	CITY LIMITS COUNTRY STORE	5800 N.W. HYW. 99W	CORVALLIS	97330	BENTON	
	FRANKO #9	646 SIXTH STREET	COOS BAY	97420	COOS	
1829	BEND OIL CO./SOUTH PACIFIC PRIDE	612 S.E. THIRD	BEND	97701	DESCHUTES	
196	PILOT BUTTE EXXON	764 N.E. GREENWOOD	BEND	97701	DESCHUTES	
4959	DESCHUTES COUNTY PUBLIC WORKS DEPT.	61150 SE 27TH STREET	BEND	97702	DESCHUTES	
9008	SPEEDE MART	61396 S. HWY 97	BEND	97702	DESCHUTES	
6118	FRANKO #40	411 FRONTAGE ROAD	SUTHERLIN	97479	DOUGLAS	
1713		936 S. CENTRAL	MEDFORD	97501	JACKSON	
3642	JEFFERSON COUNTY	715 S.E. GRIZZLY ROAD	MADRAS	97741	JEFFERSON	
6105	FRANKO #10 FRANKO #11 FRANKO #48 FRANKO #15	1701 WEST 11TH AVENUE	EUGENE		LANE	
6104	FRANKO #11	376 HWY 99 NORTH	EUGENE	97402	LANE	
6055	FRANKO #48	2795 WILLAMETTE STREET		97405	LANE	
	FRANKO #15	87614 MCVAY HWY.	EUGENE	97405	LANE	
	SPRINGFIELD ARCO	3650 EAST MAIN	SPRINGFIELD	97477	LANE	
	LINCOLN CITY PRIDE	906 HWY. 101 SOUTH	LINCOLN CITY		LINCOLN	
		10425 S.E. 42ND			MULTNOMA	
	SKYLINE'S GERMANTOWN STORE	8250 N.W. SKYLINE			MULTNOMA	
		11130 N.W. ST. HELENS	PORTLAND	97231	MULTNOMA	
	JOE'S MARKET	373 N MAIN	FALLS CITY			
	FRANKO #21	1235 N. FIRST	HERMISTON		UMATILLA	
		363 N. MAIN STREET				
1918	TIGARD BP	13970 S.W. PACIFIC HWY	TIGARD	97223	WASHINGTO	

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22 rows selected.

APPI DIX 2 - 2

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Loan Guarantees With Interest Rate Subsidy Payments

FACILITY					
ID	FACILITY NAME	FACILITY ADDRESS	CITY	ZIP	COUNTY
		R. ROADS 510 - 512		97735 L	

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APPENDIX 2 - 3

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Pollution Control and Essential Services Grants

CILITY ID	FACILITY NAME	FACILITY ADDRESS	CITY	ZIP	COUNT
9112 FORT	ROCK GENERAL STORE	R. ROADS 510 - 512	FORT ROCK	97735	LAKE
9754 FAST 3	STOP GAS/BP	104 W STARR	SUBLIMITY	97385	MARION
2611 JOE'S	MARKET	373 N MAIN	FALLS CITY	97344	POLK
673 SUZI'	S HANDY MART	211 N. WATER ST.	WESTON	97886	UMATILL
4518 C & M	COUNTRY STORE	10102 N. MCALISTER ROAD	ISLAND CITY	97850	UNION

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Insurance Premium Copayments

ACILITY ID	FACILITY NAME	FACILITY ADDRESS	CITY	ZIP	COUNTY
9112 FORT ROCK (R. ROADS 510 - 512	FORT ROCK	97735	
9754 FAST STOP (2611 JOE'S MARKE	•	104 W STARR 373 N MAIN	SUBLIMITY FALLS CITY	97344	MARION POLK
673 SUZI'S HAND	DY MART	211 N. WATER ST.	WESTON		UMATILLA
4518 C & M COUNT	IRY STORE	10102 N. MCALISTER ROAD	ISLAND CITY	97850	UNION

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APPENDIX 3

Tue Jan 12

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Statewide Summary Report - Zip Code Order

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FAC ID	REG	FAC NAME	ADDRESS	СІТҮ	ZIP	CONTACT Lorraine Huttman Marlo Treit Jon Isberg Brent Leathers Brent Leathers Joel Garretson Richard MacKenzie Phat Hotan Sandra Gaylord Ron Cain David Carrie Dana Satterlee Dana Satterlee Jim Lyons Kenneth Norman Dwight Estby BARBARA RILEY Richard Wright Richard Wright Richard Wright Dale Andert Dale Andert Dale Andert Dale Andert Dale Andert Thomas D. Cook James D. Valberg John Phimister L.D. Ferguson Frank F. Hartner Don McGee Susan Stein Ray Hellhake Lloyd D. Hobart A. Wayne Scott Lee Powell Jr. Jason Powell Thomas E. Smith Nate E. Arthur Todd Hillyard Brenda Cramblett Sandra Gaylord J. Eugene Rohrs R.L. Stein Richard Wright R.L. Stein Dale Andert	PHONE		LOI	CA	АРР
	ER	HUTTS MINI MART	HWY 95 - MCDERMITT	MCDERMITT	89421	Lorraine Huttman			17-JAN-92	14-SEP-92	
		GENERAL AVIATION SERVICES	23123 AIRPORT ROAD N.E.	AURORA	97002	Marlo Treit			27-MAR-92	17~SEP-92	
4072	WVR	ISBERG PARK	21690 DOLORES WAY N.E.	AURORA	97002	Jon Isberg			27-MAR-92		
42/4	WVR		21687 HIGHWAY 99E	AURORA	97002	Brent Leathers				25-AUG-92	
		LEATHERS OIL CO.	12334 EHLEN RD. N.E.	AURORA	97002	Brent Leathers	(503) 66	1-1244	10-JAN-92	25-AUG-92	28-JAN-92
440	WVK	PORTLAND 76 AUTO/TRUCK PL MAVERICKS COUNTRY STORE	21000 BENIS KU., N.E. 25740 S. BEAVEDODEEK DD	AURUKA	97002	Joel Garretson			01-APR-92	22-JUN-92	
		BEAVERTON AUTO SERVICE IN	655 CU HALL DIVO	BEAVERGREEN	97004	Richard Mackenzie			30-MAR-92 25-MAR-92	33 650 03	
			3790 S.W. 114TH	REAVERTON	97005	Sandra Gavlord	(503) 22		23-JAN-92	22-954-92	
			3520 S.W. CEDAR HILLS BLV	BEAVERTON	97005	Ron Cain	(503) 35		09-JAN-92	30-SEP-92	
4295	NWR	CEDAR HILLS BLVD BP FARMINGTON TEXACO	13660 S.W. FARMINGTON RD.	BEAVERTON	97005	David Carrie			07-JAN-92		
6227	NWR	FRED METER - A-1 UIL CUMP	10190 S.W. BEAVERTON HILL	BEAVERTON	97005	Dana Satterlee	(503) 23	2-8844	30-MAR-92		
			11520 S.W. CANYON RD.	BEAVERTON	97005	Dana Satterlee			30-MAR-92		
9348	NWR	HANNA 916	10270 SW CANYON	BEAVERTON	97005	Jim Lyons	(503) 65	9-0361	24-FEB-92	30-SEP-92	
1801	NWR		20955 S.W. FARMINGTON RD	BEAVERTON	97005	Kenneth Norman			27-MAR-92		
1042	NWR	MURRAY ROAD LEXACO	14495 S.W. TUALATIN VALLE	BEAVERTON	97005	Dwight Estby			06-FEB-92		
10004	NWK	PACIFIC PRIDE/SUNSET FUEL	13273 SW HENRT	BEAVERION	97005	BARBARA RILEY			27-FEB-92		
9877	NUR	PANOCO INC #39	3570 SU CEDAR HILLS RIVD	REAVERTON	97005	Richard Wright	(503) 28	6-9021	06-FEB-92 06-FEB-92	06-AUG-92	
1341	NWR	PROGRESS BP	8715 HALL BLVD. 3570 SW CEDAR HILLS BLVD 8710 S.W. HALL BLVD. 6660 S.W. SCHOLLS FERRY R	BEAVERTON	97005	Ron Cain			09-JAN-92		
7539	NWR	SHELL STATION #55	6660 S.W. SCHOLLS FERRY R	BEAVERTON	97005	Richard Wright			06-FEB-92		
1373	NWR	TEXACO SERVICE STATION	6055 S.W. HALL BLVD.	BEAVERTON	97005	Dale Andert			09-MAR-92		
1382	NWR		11850 S.W. CANYON RD.	BEAVERTON	97005	Dale Andert			09-MAR-92		
			17396 S.W. FARMINGTON RD.	BEAVERTON	97005	Dale Andert			09-MAR-92		
			17455 S.W. T.V. HIGHWAY	ALOHA	97006	David Harris			15-JAN-92		
			18560 S.W. TUALATIN VALLE	ALOKA	97006	Ron Cain				30-SEP-92	06-MAR-92
		PANOCO INC #62	18135 S.W. TUALATIN VALLE	ALOHA	97006	Richard Wright	(503) 28		06-FEB-92	06-AUG-92	
1550 7007	NWK	TEXALU STATION #051850100	19165 S.W. TUALATIN VALLE	ALUHA	97005	Dale Andert Thomas D. Sock	(503) 22	5-4257	09-MAR-92		
2073 0770	NUR	ANTHONY'S GATZODELT	27060 S F HUY 212/P D B	BEAVERION	97007	lames D. Valberg			24-MAR-92 19-MAR-92	20-SED-02	
6198	NWR	ASTRO WESTERN #503	17020 S.W. FARMINGTON ROA 27960 S.E. HWY. 212/P.O.B 13230 S.E. ORIENT DR. 24802 S.E. HWY 224	BORING	97009	John Phimister			09-JAN-92		
9916	NWR	BARTON STORE	24802 S.E. HWY 224	BORING	97009	L.D. Ferguson	(503) 63	7-3069	07-JAN-92	01-JUN-92	
1168	NWR	CHEVRON - ASHLEY'S SWISS	31251 S.E. HWY 26	BORING	97009	Frank F. Hartner			11-FEB-92		
9884	NWR	MCGEE, DON	32700 SE LEEWOOD	BORING	97009	Don McGee	(503) 66	8-4443	15-JAN-92		
		CANBY SERVICE	262 S.E. 1ST ST.	CANBY	97013	Susan Stein			09-MAR-92		
		LAN DAVIS CO.	891 S.E. 1ST	CANBY	97013	Ray Hellhake			01-APR-92		
		LLOYD D. HOBART CANBY SHE	293 S.W. 1ST AVE.	CANBY	97013	Lloyd D. Hobart			31-MAR-92		
		LONE ELDER STORE	25995 S. HWY 170	CANBY	97013	A. Wayne Scott			10-FEB-92	01-001-92	
		POWELL DISTRIB. CO., INC. POWELL DISTRIBUTING CO, I	ACT HIGHWAT YY E.	CANBI	97013	Lee Powell Jr.			28-FEB-92 28-FEB-92	14-000-07	
			896 S. IVY	CANBY	97013	Thomas F Smith			10-FEB-92		
		CASCADE LOCKS CHEVRON	437 WA-NA-PA	CASCADE LOCK	97014	Nate E. Arthur	(505) 04		27-MAR-92		
			425 WA,NA,PA ST.	CASCADE LOCK	97014	Todd Hillyard	(503) 29	6-4600	24-MAR-92		
			101 SE WANAPA	CASCADE LOCK	97014	Brenda Cramblett			31-MAR-92		
3469	NWR	CARSON OIL CO, INC.	9911 S.E. ELON ST.	CLACKAMAS	97015	Sandra Gaylord			23-JAN-92		
971	NWR	CHEVRON U.S.A., INC 96	15901 S.E. 82ND DR.	CLACKAMAS	97015	J. Eugene Rohrs	(503) 63	3-2368	31-MAR-92		
7972	NWR	CLACKAMAS SERVICE	10560 S.E. HWY 212	CLACKAMAS	97015	R.L. Stein			09-MAR-92		
7583	NWR	CLACKAMAS SERVICE PANOCO INC STEIN OIL COMPANY	16010 S.E. 82ND DR.	CLACKAMAS	97015	Richard Wright	(503) 28		06-FEB-92		
			HWT ZIZ & TUZNO AVE	CLACKAMAS	97015	K.L. Stein			09-MAR-92	21-SEP-92	
1280	NMK	TEXACO SERVICE STATION	16002 S.E. 82ND DR	ULAUKAMAS	AL012	Date Andert	(503) 22	5-4251	09-MAR-92		

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FAC ID R	EG FAC NAME	ADDRESS	CITY	ZIP	CONTACT Gary Mellema Garold L. Settje Ernest J. Strasser Clayton Johnson John R. Martin Ron Hahn Michael Morrisey Steve Wilcox Clyde Musty Dave Wilcox Suzanne McCarthy Richard N. Cerruti John T/ Karmen K Bresko Mabel F. Hobart Brent Leathers W.C. Felker Therese M. Greenup T. E. Olson John E. Shepanek Richard Wright R.L. Stein R.L. Stein Clifford A. Burbank John Kohnstamm Jeff Kohnstamm Jeff Kohnstamm Ricky Powell W. O. Conn Darrell C. Fleming Darrell C. Fleming John Hanson Harold Pliska John E. Shepanek Jim Lyons Brent Leathers Brent Leathers Danny G. Cranford Richard Wright Richard Wright Richard Wright Richard Wright	PHONE		LOI	CA	АРР
2925 N	JR CLATSKANIE CHEVRON	25 WEST COLUMBIA RIVER HW	CLATSKANIE	97016	Gary Mellema	(206)	423-3300	19-MAR-92	23-SEP-92	
2832 N	JR CLATSKANIE MINI MART	260 COLUMBIA RIVER HWY	CLATSKANIE	97016	Garold L. Settje			25-FEB-92	28-SEP-92	
	R CLATSKANIE SHELL SERVICE	45 COLUMBIA RIVER HWY	CLAISKANIE	97016	Ernest J. Strasser	(503)	128-3232	10-JAN-92	11-SEP-92	
	R JOHNSON OIL OF CLATSKANIE	10447 VERNO DOMO		97016	Liayton Jonnson	(503)	343-0041	01_ADD_07	21-AUG-92	
10101 N	VR MARTIN, JOHN R. VR RUNYON'S	11126 HUY 202	RIRKENFELD	97016	Ron Habn	(503)	755-0900	07-JAN-92	01-061-72	
6536 N	/R MARTIN, JOHN R. /R RUNYON'S /R WESTMART FOODSTORE	COLUMBIA RIVER HIGHWAY 30	WESTPORT	97016	Michael Morrisev	(503)	455-2253	07-JAN-92	17-SEP-92	24-MAR-92
5892 N	R WILCOX & FLEGEL-CARDLOCK	HIGHWAY 30 AND SWEDE TOWN	CLATSKANIE	97016	Steve Wilcox	1-800-	438-9656	•••••••	23-SEP-92	
	AR CLYDE'S UNION SERVICE	19668 s. HWY 211	COLTON	97017	Clyde Musty	(503)	824-2592	13-JAN-92	15-SEP-92	
	R COLTON GARAGE - DAVE WILC	21088 s. HWY 211	COLTON	97017	Dave Wilcox	(503)	824-5110	20-MAR-92	26-AUG-92	
643 N	JR CORBETT COUNTRY MARKET	36801 NE CROWN PT HWY	CORBETT	97019	Suzanne McCarthy	(503)	695-2234	25-MAR-92	17-SEP-92	
8039 N	WR POUNDER OIL SERVICE, INC.	CROWN POINT HWY & EVANS R	CORBETT	97019	Richard N. Cerruti	(503)	695-2555	09-MAR-92	01-0CT-92	
	AR ESTACADA OIL COMPANY	502 S.E. CURRIN	ESTACADA	97023	John T/ Karmen K Bresko	(503)	630-4163	17-JAN-92	13-AUG-92	
	R ESTACADA SHELL SERVICE	486 E. MAIN	ESTACADA	97023	Mabel F. Hobart	(503)	829-2122	31-MAR-92	30-SEP-92	70
4281 N	VR LEATHERS OIL CO.	604 W. WADE	ESTACADA	97023	Brent Leathers	(503)	661-1244	10-JAN-92	25-AUG-92	30-JAN-92
	R MT. HOOD OIL CO. ESTACADÁ	400 SW ZNU SI.	ESTACADA	97023	W.C. Felker Thanna M. Chaepun	(503)	470-2977	04-MAK-92	10-SEP-92	
8092 NI	VR SPRINGWATER FEED VR ARMSTRONG BUICK, INC.		CLADSTONE	07023	T E Dison	(503)	656-2036	30-MA0-02	01-00X-92	
9343 NI	JR J.E.S. & SONS	19200 SE MCLOUGHLIN BLVD.		97027	John F. Shenanek	(503)	265-9274	01-APR-92	14-SEP-92	
7532 N	JR SHELL STATION #48	655 E. ARLINGTON	GLADSTONE	97027	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
1714 N	NR J.E.S. & SONS JR SHELL STATION #48 JR STEIN OIL CO, INC.	19855 MCLOUGHLIN	GLADSTONE	97027	R.L. Stein	(503)	656-0375	09-MAR-92	21-SEP-92	
7950 N	R STEIN OIL CO., INC.	19805 MCLOUGHLIN BLVD	GLADSTONE	97027	R.L. Stein	(503)	656-0375	09-MAR-92	21-SEP-92	
2712 N	JR C.J.'S ALPINE SERVICES IN	93770 E. HWY 26	GOVERNMENT C	97028	Clifford A. Burbank	(503)	337-2277	07-JAN-92	13-MAY-92	17-MAR-92
1338 N	JR SUMMIT BP JR SUMMIT CHEVRON & GRASS VALLEY STATION	GOVERNMENT CAMP LOOP	GOVERNMENT C	97028	John Kohnstamm	(503)	272-3311	13-JAN-92	26-0CT-92	
8901 N	R SUMMIT CHEVRON	90149 E. GOVERNMENT CAMP	GOVERNMENT C	97028	Jeff Kohnstamm	(503)	272-3311	13-JAN-92	20-MAY-92	
7770 0	C GRASS VALLEY STATION	HWI Y/ & MILL	GRASS VALLEY	97029	Kicky Powell	(503)	535-2555	13-FEB-92	10-SEP-92	
6026 M	MID COLUMBIA PRODUCERS, I R ARCO SERVICE R ARCO SERVICE R GILES FUELS INC. R H.J.P., INC. R HANNA 906 R HANNA 907 R LEATHERS OIL CO. R LEATHERS OIL CO. R LEATHERS OIL COMPANY R ORIENT COUNTRY STORE P DANOGO ING #72	20120 NE SANDY RIVO	COESHAM	97029	N. U. COMI Dercell C. Eleming	(000)	1616-505	21-JAN-92	21-0CT-02	
6923 N	JR ARCO SERVICE	16431 SE FOSTER RD	GRESHAM	97030	Darrell C. Fleming			14-FE8-92	26-MAY-92	
2762 N	R GILES FUELS INC.	21415 S.E. STARK	GRESHAM	97030	John Hanson			03-FEB-92	BU 1011 7E	
7249 N	R H.J.P., INC.	1011 N. MAIN	GRESHAM	97030	Harold Pliska	(503)	665-5693	17-JAN-92	10-SEP-92	
9344 NI	R HANNA 906	1725 E. POWELL BLVD.	GRESHAM	97030	John E. Shepanek	(503)	265-9274	01-APR-92		
וא 9350 או	JR HANNA 907	80 E. BURNSIDE	GRESHAM	97030	Jim Lyons	(503)	659-0361	24-FEB-92	30-SEP-92	
4276 N	R LEATHERS OIL CO.	1225 S.E. ORIENT DR.	GRESHAM	97030	Brent Leathers	(503)	661-1244	10-JAN-92	25-AUG-92	28-JAN-92
4242 N	JR LEATHERS OIL COMPANY	22300 S.E. STARK STREET	GRESHAM	97030	Brent Leathers	(503)	661-1244	10-JAN-92	25-AUG-92	30-JAN-92
7379 N	AR ORIENT COUNTRY STORE	29822 ORIENT DRIVE	GRESHAM	97030	Danny G. Cranford	(507)	284 0421	21-JAN-92	04 10 07	
I OUD N	JR PANOCO INC #32	2020 N.E. STAKK SIKEET	GRESHAM	97030	Richard Wright	(503)	200-9021	06-168-92	06-AUG-92	
7071 N	√R PANOCO, INC √R PLAID PANTRY #80	1755 E. BURNSIDE 1055 N.E. KANE	GRESHAM GRESHAM	97030	Torry Pyle	(503)	646-4746	16-MAR-92	30-SEP-02	
0563 11	IR POWELL VALLEY MARKET	4836 E POWELL BLVD	GRESHAM	97030	Paul Fischer	(503)	666-3570	01-APR-92	50 3EF 76	
	IR SPACE AGE FUEL	2815 E. POWELL VALLEY RD.	GRESHAM	97030	lim Pliska	(503)	665-5693	01-APR-92	10-SEP-92	
	JR TEXACO STATION	975 N.E. HOGAN & DIVISION	GRESHAM	97030	Dale Andert	(503)	225-4257	09-MAR-92		
	JR TEXACO STATION	45 W. BURNSIDE	GRESHAM	97030	Dale Andert	(503)	225-4257	09-MAR-92		
א 1115 אי	JR UNOCAL 6139	985 E. BURNSIDE	GRESHAM	97030	Gary Dent	(503)	524-9201	01-APR-92		
		FRONT & STATE STREETS	HOOD RIVER	97031	John Phimister	(503)	243-7899	09-JAN-92	21-SEP-92	
4232 CI	R BOOTH, JACK L.	1120 TUCKER RD.	HOOD RIVER	97031	Jack L. Booth	(503)	386-1296	23-MAR-92	28-SEP-92	
	CENTRAL SALES, INC.	1350 TUCKER RD.	HOOD RIVER	97031	Don Reinig	(503)	386-3483	50-MAR-92	70 050 00	
	R HANEL LUMBER COMPANY	1330 TUCKER RD. 4865 HWY 35 3289 NEAL MILL ROAD	HOOD RIVER	97031	Sandra Gaylord Sandra Caylord	(503)	224-8500	23-JAN-92	30-5EP-92	
9406 C	C HANEL LUMBER LUMPANI (NEA D HADDED WILLIAM D	2100 COUNTRY CLUB RD.	HOOD RIVER HOOD RIVER	97031	Jim Lyons Brent Leathers Brent Leathers Danny G. Cranford Richard Wright Richard Wright Terry Pyle Paul Fischer Jim Pliska Dale Andert Dale Andert Gary Dent John Phimister Jack L. Booth Don Reinig Sandra Gaylord Sandra Gaylord William P. Harper	(503)	386-1754	20-NOV-92	20-NOV-92	
4127 6	R HARPER, WILLIAM P.	2100 COUNTRI CLUB RD.	HOUD KIYLK	1001	witten f. naipei	(505)	500 1154	20 NOV 72		

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Statewide Summary Report - Zip Code Order

FAC ID	REG	FAC NAME	ADDRESS	СІТҮ	ZIP	CONTACT Doug Hattenhauer Pat Mc Allister Jerold Kramer Mrs. Nobi Akiyama R. L. Fries Doug Hattenhauer Stewart Edwards Devin Hobbs Steve Sparks A. C. Riley David L. Taylor Thomas McCain Jason Powell Fred A. Wambaugh Michael L. Johnson Louie Rivas David Roche Susan Stein ROB FOREST Robert MacLean Jeffery D. Grimm Richard Wright Dale Andert Dale Andert Dale Andert Lee Pentecost Herbert Snodgrass Gloria & Michael McLucas Yeugene Walters R. M. Richmond Albert Troutman Yeugene Walters R. M. Richmond Albert Troutman Yeugene Walters Arlies Blackman Randy L. Griffin Scheryl F. Borths Lloyd D. Hobart Lloyd D. Hobart Bed Stafford Jason Powell Richard E. Reasoner Ed Stafford Jason Powell Richard E. Reasoner Ed Stafford Jason Powell Richard J. Winterbottom Jim & Cleo Weseman John Bartlett William J. Frost Christine Taylor D. Scott Baumer Donald Cox	PHONE		LOI	CA	APP
1915	CR	HARVEY'S TEXACO	3450 CASCADE DRIVE	HOOD RIVER	97031	Doug Hattenhauer			18-FEB-92	28-AUG-92	
3522	CR	HOOD RIVER SUPPLY ASSOC.	1995 12TH ST.	HOOD RIVER	97031	Pat Mc Allister	(503) 386-	2757	07-FEB-92	20-AUG-92	
8936	CR	KRAMER, JEROLD	403 OAK	HOOD RIVER	97031	Jerold Kramer	(503) 386-	3266	04-MAR-92	17-SEP-92	
9261	CR	NOBI'S	1380 TUCKER ROAD	HOOD RIVER	97031	Mrs. Nobi Akiyama	(503) 386-	2687	06-MAR-92	11-SEP-92	
2088	CR	PETROLANE	1413 12TH STREET	HOOD RIVER	97031	R. L. Fries	(209) 486-	2770	09-MAR-92		
4783	CR	PINE GROVE TEXACO	2385 HWY 35.	HOOD RIVER	97031	Doug Hattenhauer			18-FEB-92	29-SEP-92	
1826	CR	PORT OF HOOD RIVER MARINA	PORT MARINA PARK	HOOD RIVER	97031	Stewart Edwards	(503) 386-	1645	07-JAN-92		
10624	CR	RIVERS EDGE B.P.	101 N. 2ND ST.	HOOD RIVER	97031	Devin Hobbs	(503) 386-	6944	02-MAR-92		
232	CR	THE BOYS PINE GROVE GROCE	2375 HWY, 35	HOOD RIVER	97031	Steve Sparks	(503) 386-	-4652 F 277	13-JAN-92	10-A0G-92	
9104	CR	VILLAGE SHELL	1-84 & HWY 35	HOOD RIVER	97031	ALU KILEY	(203) 200-	.2233	25-MAK-92	30-SEP-92	
/10/	CR	WINDMASTER MARKET	TODU TUCKER RD.	HOOD KIVEK	97031	L DAVIG L. TAYLOF	(203) 200-	4477	23-MAK-92	12-256-25	
4220	WVK	HUBBARD MOBIL	JJ25 PAULFIC HWY	HUBBARD	97032	Linomas McLain	(202) 901-	50074 EEE0	07*JAN-92	14-050-02	
0029	WVK	POWELL DISTRIBUTING LO.,	AIGHWAT YY E. & G SIKEEL		97032	C Jason Powell	(503) 209-	0405	20-FEB-92	10-SEP-92 20-SEP-02	
7519	WVK	WAMDAUGH, FRED A.	FOR C THICKEY UTLE OF		97032	, ried A. Wandaugh	(503) 451-	2101	24-MAD-02	29-365-92	
7025	WVK CD	WAISKET HILL STOKE	-00 BOV 773 - HUV 07	NUBBARD	91032	Lauia Rivea	(503) 333-	2121	18-552-07	21-367-74	
0405		DAVE & DALLSADES CHEVDON		LAKE OSUECO	77072	David Roche	()()))))-	2105	10-FEB-92		05-001-92
7082	NWA	LAKE COOVE SERVICE	17805 S LI BOONES EEDAY D	LAKE OSWEGO	07034	Sucan Stein	(503) 656-	0375	NQ-MAR-92	21-SEP-02	05 001 72
4974	NUR	LAKE OSUEGO ARCO	608 N STATE ST	LAKE OSWEGO	97034	ROB FOREST	(503) 682-	3865	15-JAN-92	30-SEP-92	
7221	NUR	LAKE OSWEGO SHELL	504 N STATE	LAKE OSUEGO	97034	Robert Maclean	(503) 636-	2338	21-JAN-92	01-007-92	
1753	NUR	MOBIL SERVICE STATION	1631 S SHORE BLVD	LAKE OSWEGO	97034	Jeffery D. Grimm	(503) 636-	3623	19-MAR-92	23-SEP-92	
7535	NWR	PANOCO INC #52	16000 LOWER BOONES FERRY	LAKE OSWEGO	97034	Richard Wright	(503) 286-	9621	06-FEB-92	06-AUG-92	
1370	NWR	TEXACO SERVICE STATION	16211 S.W. BOONES FERRY	LAKE OSWEGO	97034	Dale Andert	(503) 225-	4257	09-MAR-92		
838	NWR	TEXACO STATION	14951 S.W. BANGY LANE	LAKE OSWEGO	97034	Dale Andert	(503) 225-	4257	09-MAR-92		
1335	NUR	TEXACO STATION	209 A ST.	LAKE OSWEGO	97034	Dale Andert	(503) 225-	4257	09-MAR-92		
1079	NWR	UNOCAL 5721	15650 S.W. UPPER BOONES F	LAKE OSWEGO	97034	Lee Pentecost	(503) 638-	3702	01-APR-92	25-SEP-92	
198	CR	BARNETT TEXACO SERVICE	450 DESCHUTES	MAUPIN	97037	Herbert Snodgrass	(503) 395-	2523	31-JAN-92	15-SEP-92	
4081	CR	OASIS RESORT	U.S. HIGHWAY 197 S	MAUPIN	97037	Gloria & Michael McLucas	(503) 395-	2611	24-JAN-92	28-SEP-92	
644	CR	PINE GROVE MERCANTILE	RT. 1, BOX 326	MAUPIN	97037	′Eugene Walters	(503) 328-	6238	29-JAN-92		
3457	CR	RICHMOND'S SERVICE	511 DESCHUTES AVE	MAUPIN	97037	R. M. Richmond	(503) 395-	2638	01-APR-92		
7998	CR	TROUTMAN ENTERPRISES, INC	HIGHWAY 197 & BAKEOVEN RO	MAUPIN	97037	Albert Troutman	(503) 395-	2261	27-MAR-92		
4138	CR	WALTERS, EUGENE H.	ROUTE 1, BOX 26 - WALTERS	MAUPIN	97037	'Eugene Walters	(503) 328-	6238	29-JAN-92		
1282	NWR	BLACKMAN'S 4-WAY GROCERY	12704 S HWY 211-JCT 213	MOLALLA	97038	3 Arties Blackman	(503) 829-	9290	14-JAN-92	11-SEP-92	
7817	NWR	CEDARDALE STORE	18215 S. HIGHWAY 211	MOLALLA	97038	3 Randy L. Griffin	(503) 829-	·8348	23-JAN-92	10-SEP-92	
9249	NWR	DICKEY PRAIRIE STORE	16560 S. RAMSBY RD.	MOLALLA	97038	3 Cheryl F. Borths	(503) 829-	7654	30-MAR-92	24-AUG-92	
1433	NWR	HOBART, LLOYD D.	112 DIXON AVE.	MOLALLA	97038	Lloyd D. Hobart	(503) 829-	2122	31-MAR-92	30-SEP-92	
9603	NWR	HOBART, LLOYD D.	126 DIXON AVE	MOLALLA	97038	S Lloyd D. Hobart	(503) 829-	2122	31-MAR-92	30-522-92	
1282	NWR	MOLALLA CHEVRON	204 E. MAIN SI.	MOLALLA	97038	S EG STATTOFG	(505) 829-	'0441 EEE0	24-MAK-92	14 CED 02	
6024	NWR	MULALLA KWIK GAS	SUT SUUTH MAIN	MULALLA	97030) Jason Powell	(203) 209-	2502	20"FEB"92	10-255-32	
7070	NWK	REASUNER'S SHELL SERVILE	202 W. MAIN 407 U. MAIN CT		97030) Kitharu E. Keasonen	(503) 820-	5661	24-MAD-02	30-SED-02	
1219	NWK	V HARVET	DUD W. MAIN SI.		97030	Penald A Shanland in	(503) 820-	9/91	15 (1)(-02	JU 3LI 7L	05-001-92
7725	NWK CD		2003 EIDET AVENUE	MOLALLA	07030	U O Com	(503) 565-	3737	21-141-92	30-SEP-02	05 001 72
8173	CP	H & H ANTA SEDVICE	1202 FIRST AVE	MOSTER	070/.0) Howard J. Winterbottom	(503) 478-	3510	13-JAN-92	11-MAY-92	
7020	CD CD	ATWIS MARKET	AAAS DEE HUGHUAY	PARKDALE	97040	l Jim & Cleo Weseman	(503) 352-	7101	23-MAR-92	28-0CT-92	
10004	CR CR	MT HOOD COUNTRY STORE	6545 COOPER SPUR ROAD	MT HOOD	97041	John Bartlett	(503) 352-	6827	27-MAR-92	09~SEP-92	
30750	CR	MT. HOOD SHELL	6520 HIGHWAY 35	MOUNT HOOD	97041	William J. Frost	(503) 352-	6988	10-JAN-92		
1942	CR	PARKDALE CHEVRON	SECOND & BASELINE DR	PARKDALE	97041	Christine Taylor	(503) 386-	4669	11-FEB-92	25-SEP-92	
10017	CR	UPPER VALLEY AUTOMOTIVE	4946 BASELINE RD. P.O. B	PARKDALE	97041	D. Scott Baumer	(503) 692-	3354	31-MAR-92		
1450	NWR	DON COX PROPANE	27980 S. HWY. 213	MULINO	97042	2 Donald Cox	(503) 829-	5560	19-MAR-92		
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Statewide Summary Report - Zip Code Order.

FAC ID	REG	FAC NAME	ADDRESS 3398 ODELL HWY. 3387 ODELL HWY. HIGHWAY 282 123 OREGON CITY SHOPPING 20990 S. FISCHER MILL RD. 860 MOLALLA 13927 S. HOLCOMB BLVD. 1780 1/2 WASHINGTON ST. 1780 WASHINGTON STREET 1002 MOLALLA AVE. 18150 S. REDLAND RD. 1033 SOUTH END ROAD 1701 CLACKAMETTE DR. 1511 MOLALLA AVE 1321 MAIN ST. 1224 MCLAUGHLIN 2539 ALSTON RD. W. THIRD AND B ST. 75754 ROCK CREST ST. 207 B. WEST 75754 ROCK CREST ST. 207 B. WEST 75754 ROCK CREST ST. 207 B. WEST 75755 NORTH HIGHWAY 30 1050 OLD PORTLAND ROAD 175 S. HWY. 3144 PITTSBURG RD. 373 S. COLUMBIA HWY. 745 S. HWY. 30 1050 OLD PORTLAND ROAD 175 S. HWY 38144 OLD PORTLAND ROAD 175 N. HWY 30 134 RIVER ST./P.O. BOX 10 31490 CANAAN RD. 64561 COLUMBIA RIVER HWY 23424 SE COUNTRY SQUIRE R 38422 PROCTER BLVD. 39021 PROCTOR BLVD. 39191 PROCTOR BLVD. 39191 PROCTOR BLVD. 39191 PROCTOR BLVD. 37396 RUBEN LANE 42600 S.E. HWY 26 3028 KCAPPOOSE VERHONIA	CITY	ZIP	CONTACT	C	PHONE		LOI	CA	APP
241	CR	CLEM'S COUNTRY STORE	3398 ODELL HWY.	ODELL	97044	Cynthia Davis		(503)	354-1296	27-MAR-92	29-SEP-92	07-DEC-92
1241	CR	GEHRIG'S CHEVRON	3387 ODELL HWY.	ODELL	97044	Rudy Fred Gehrig Jr	•	(503)	354-1202	31-MAR-92	30-SEP-92	
1935	CR	KEYLOCK	HIGHWAY 282	ODELL	97044	W.D. Hillyard		(503)	386-3456	04-MAR-92	01-0CT-92	
1322	NWR	FIRESTONE STORE #3555/FUL	123 OREGON CITY SHOPPING	OREGON CITY	97045	Steven Burg		(503)	223-2108	04-FEB-92		
7269	NWR	FISCHER MILL SUPPLY, INC.	20990 S. FISCHER MILL RD.	OREGON CITY	97045	Eugene G. Fischer		(503)	631-3411	16-JAN-92	20	
3819	NWR	HILLIOP CHEVRON	47027 C HOLCOND THYS	OREGON CITY	97045	Ronald Carter		(503)	255-5565	28-JAN-92	28-MA1-92	
295	NWK	JEN-LHRIS INCSIEVES MAR	13927 S. HOLCOMB BLVD.	OREGON CITY	97045	VICTOR H. UVERTURT		(503)	626-4UZZ	15-JAN-92	31 650 03	
7930	NWK	VELLY FIELD CARDLOCK	1700 1/2 WASHINGTON ST.	OREGON CITY	97045	R.L. Stein		(203)	454-0375	09-MAR-92	21-557-72	
1902	NWK	LEATHERS OF CO	1002 MOLALLA AVE	OREGON CITY	97045	R.L. Stein Pront Loothoro		(503)	636-0373	10- 1AN-02	21-362-92	28-141-02
4613	NILID	DEDIAND CADAGE	19150 C DEDLAND DD	OREGON CITT	07045	Depiel Paulor		(503)	601-1244	10-5ER-02	24-550-02	20-JAN-92
181	NUP	SOUTH END GROCERY	1033 SOUTH END POAD	OPEGON CITY	07045	Kim Haucroft		(303)	021-2424	10-148-92	24-326-72	
0155	NUR	SPORTCRAFT LANDING PUBLIC	1701 CLACKAMETTE DR	OREGON CITY	07045	Larry Righee		(503)	456-6484 ·	10-FER-02	30-950-92	
7980	NUR	STEIN OIL CO INC	1511 MOLALIA AVE	OREGON CITY	97045	R.L. Stein		(503)	656-0375	09-MAR-92	21-SEP-92	
988	NUR	UNDCAL 4487	1321 MAIN ST	OREGON CITY	97045	lee Pentecost	-	(503)	638-3702	01-APR-92	25-SEP-92	
9655	NWR	WEILER MOTOR CO	1224 MCI AUGHLIN	OREGON CITY	97045	Janice Newby Kenned	lv'	(206)	693-9207	01~APR-92		
685	NWR	ALSTON COUNTRY STORE	2539 ALSTON RD.	RAINIER	97048	Russell Andrews	·,	(503)	556-9685	20-MAR-92	31-JUL-92	
1192	NWR	DOVE. WINIFRED E.	W. THIRD AND B ST.	RAINIER	97048	Gary Mellema		(206)	423-3300	08-JAN-92	29-SEP-92	
6109	NWR	RAINIER BP	75719 ROCK CREST ST.	RAINIER	97048	ROB FOREST		(503)	682-3865	15-JAN-92	30-SEP-92	
1503	NWR	RAINIER CHEVRON	207 B. WEST	RAINIER	97048	Gary Mellema		(206)	423-3300	28-JAN-92	23-SEP-92	
6319	NWR	RAINIER TEXACO	75754 ROCK CREST ST.	RAINIER	97048	R. Ĺ. Delphia		(503)	325-2282	14-JAN-92	03-SEP-92	
11025	NWR	ZIG ZAG MTN STORE	70171 E HWY 26	ZIG ZAG	97049	Soim Reichlein	÷	503622	3200	01-APR-92		
542	CR	J & J MINI MART	501 S.E. FIRST	RUFUS	97050	Jim Wallace	· · ·	(503)	739-2887	30-MAR-92		
605	NWR	A & C'S YANKTON STORE	33144 PITTSBURG RD.	ST. HELENS	97051	Henry Al Francis		(503)	397-5900	23-MAR-92	23-SEP-92	
6195	NWR	BILL'S KWIK MART	373 S. COLUMBIA HWY.	ST. HELENS	97051	Herb & Susan Thomps	ion	(503)	738-5639	23-MAR-92	28-SEP-92	
7577	NWR	BP MOBILE ONE STOP	745 S. HWY. 30	ST. HELENS	97051	Jeff Simpson		(503)	397-2807	30-MAR-92	01-0CT-92	
5697	NWR	FRANO'S CARDLOCK	325 NORTH HIGHWAY 30	ST. HELENS	97051	Gary Mellema		(206)	423-3300	19-MAR-92	23-SEP-92	
9850	NWR	HANEY'S GROCERY	1050 OLD PORTLAND ROAD	ST. HELENS	97051	Gary Schwirse		(503)	397-0770	18-MAR-92		
662	NWR	HULSOPPLE, HAROLD J.	175 S. HWY	ST. HELENS	97051	Harold J. Hulsopple	:	(503)	397-0223	18-FEB-92	17-SEP-92	
5471	NWR	PACIFIC WESTERN FOREST IN	58144 OLD PORTLAND RUAD	ST. HELENS	97051	James C. York			107 7700	24-MAR-92	21-AUG-92	
1355	NWR	SI. HELEN CHEVRON	115 N. HWY 30	ST. HELENS	97051	Gary Mellema		(206)	425-5500	19-MAR-92	23-SEP-92	
/34	NWR	SI. HELENS MARINA, INC.	154 RIVER S1./P.O. BOX 10	SI. HELENS	97051	James D. Calnon		(503)	397-4102	19-MAK-92	20 050 02	
659	NWR	CANAAN STORE	5149U CANAAN RD.	DEER ISLAND	97054	Dale L. Clark		(503)	597-2010	21-JAN-92	29-522-92	
9895	NWR	NAW INC. OBA DEER ISLAND	27/2/ ST COUNTRY SOUTH P	DEEK ISLAND	97054	Vanessa Kobinson		(503)	243-3442	21-MAK-94	20-5EP-92 17-6ED-02	
6000	NWK	LOUNINI SQUIKE AIRPARK	23424 SE COUNTRE SQUIRE R	SANDY	97055	Brent Loothers		(503)	661-1266	2.3-PIAK-92	25-AUG+92	
4255	NUP	LEATHERS OIL CO.	30021 PROCTER BLVD.	SANDY	07055	Brent Leathers		(503)	661-1244	10-JAN-92	25-416-92	30~.IAN-92
141	NUP	R S SMITH MOTOR CO	39191 PROCTOR BLVD P O	SANDY	97055	Bonald 8 Smith		(503)	668-4388	13-FF8-92	17-AUG-92	50 0/11 /2
7443	NUR	SANDY BP SERVICE	39535 PROCTOR BLVD.	SANDY	97055	James 0. & Dorothy	C. Bates	(503)	668-6828	24-FEB-92	02-SEP-92	
9910	NWR	SANDY KEYLOCK	37396 RUBEN LANE	SANDY	97055	W.C. Felker		(503)	665-2188	04-MAR-92	16-SEP-92	
1941	NWR	SANDY BP SERVICE SANDY KEYLOCK SHORTY'S CORNER	37396 RUBEN LANE 42600 S.E. HWY. 26	SANDY	97055	Gale Meier		(503)	668-4144	07-JAN-92	01-JUL-92	
3014	NWR	THOMAS R., PHYLLIS J. FAR	59650 E HWY 26	SANDY	97055	Thomas Farrell		(503)	622-4116	10-JAN-92	17-JUL-92	
5681	NWR	B & B MARKET & SUPPLY	32284 SCAPPOOSE VERNONIA	SCAPPOOSE	97056	Robert Duschka		(503)	543-6048	24-MAR-92	17-SEP-92	
3772	NWR	LARRY'S SHELL	52413 S. COLUMBIA RIVER H	SCAPPOOSE	97056	Larry R. Engstrom		(503)	543-6974	20-MAR-92	28-SEP-92	
4245	NWR	LARRY'S SHELL LEATHERS OIL CO.	50654 COLUMBIA RIVER HWY	SCAPPOOSE	97056	Brent Leathers		(503)	661-1244	10-JAN-92	25-AUG-92	28-JAN-92
9092	NWR	ROADRUNNER GAS & GROCERY	52023 COLUMBIA RIVER HWY	SCAPPOOSE	97055	Doug Migliori		(503)	543-5052	18-MAR-92	19-AUG-92	
1541	CR	ASTRO #261		THE DALLES	97058	John Phimister		(503)	243-7899	09-JAN-92	21-SEP-92	
2796	CR	ASTRO/EXXON #264		THE DALLES	97058	John Phimister		(503)	243-7899	09-JAN-92	21-SEP-92	
6405	CR	ROADRUNNER GAS & GROCERY ASTRO #261 ASTRO/EXXON #264 DENNIS BOTTS DOWNTOWN TEXACO		THE DALLES	97058	Botts Dennis		(503)	296-9017	10-FEB-92	17-SEP-92	
8744	CR	DOWNTOWN TEXACO	3RD & LINCOLN	THE DALLES	97058	James O. & Dorothy W.C. Felker Gale Meier Thomas Farrell Robert Duschka Larry R. Engstrom Brent Leathers Doug Migliori John Phimister John Phimister Botts Dennis Doug Hattenhauer				18-FEB-92	28-AUG-92	

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C ID REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT Michelle Wilson Robert Green Todd Hillyard Milt Tumilson Dee Smiley Doug Hattenhauer Sally Temple William Gord Anna L. Trapp William Van Nuys Todd Hillyard Doug Hattenhauer L Kirk French G.D. Brawley Gerald Branley John T. Smith Donald W. Rognon Ivan D. Handy Chester T. Morrow Richard N. Cerruti Dale Andert Dale Andert Garry & Katherine LaPoint Duane Stroupe	PHONE		LOI	CA	APP
8619 CR	DUFUR TEXACO GREEN, ROBERT L. HILCO FOOD MART MILT'S BP MUNCHIES MINI MART RINGERS TEXACO	190 MAIN STREET	DUFUR	97058	Michelle Wilson	(503)	467-2622	06-MAR-92	28-SEP-92	
170 CR	GREEN, ROBERT L.	1206 W. SECOND	THE DALLES	97058	Robert Green	(503)	296-4651	31-JAN-92	15-SEP-92	
1936 CR	HILCO FOOD MART	703 EAST 2ND	THE DALLES	97058	Todd Hillyard	(503)	296-4600	04-MAR-92	01-0CT-92	
8560 CR	MILT'S BP	206 W 3RD STREET	THE DALLES	97058	Milt Tumilson	(503)	296-6389	03-FEB-92	01-0CT-92	
7648 CR	MUNCHIES MINI MART	3838 W. 6TH ST.	THE DALLES	97058	Dee Smilev	(503)	298-4703	24-MAR-92	29-SEP-92	
1824 CR	RINGERS TEXACO	353 AND US HWY 197F	THE DALLES	97058	Doug Hattenhauer	•• •		18-FEB-92	28-AUG-92	
439 CR	SPARKLE CAR WASH	1025 W. 8TH PLACE	THE DALLES	97058	Sally Temple	(503)	296-3905	21-FEB-92	01-0CT-92	
9081 CR	THE DALLES YACHT CLUB	BOAT BASIN	THE DALLES	97058	William Gord	(503)	296-1436	30-MAR-92	29-SEP-92	
	TRAPP'S	2702 EAST 2ND	THE DALLES	07058	Appa i Trapp	(503)	296-4308	30-MAR-92	23-SEP-92	
	VAN NUYS, WILLIAM	335 US HWY 197	THE DALLES	07058	Villiam Van Nuve	(503)	206-8975	04-MAR-92	01-001-92	
		1433 WEST SECOND	THE DALLES	07058	Todd Willward	(503)	206-6600	04 MAD-02	01-001-02	
	WESTSIDE TEXACO	3902 WEST 6TH	THE DALLES	07058	Dour Watterhauer	(503)	270 4000	18_FER_07	28-110-02	
	BURNS BROTHERS	790 NW FRONTAGE ROAD	TROUTDALE	07060	L Kick French	(503)	228-7203	70-1LD 7L	20 AUG 72	
	CHEVRON U.S.A., INC 95		TROUTDALE	07060	C.D. Browley	(503)	666-1182	11_ADD-07		
700 NUD	CHEVRON U.S.A., INC 98	2555 N C 279TU	TROUTDALE	07060	Corold Broploy	(503)	282-5607	10- INV-02		
	R FAIRVIEW BP	_1605 N.E. 223 AVE.	TROUTDALE	07040	John T Smith	(503)	202-3477	01_ADD_07	27_CED_02	
		1005 N.E. 225 AVE.	TROUTDALE	07040	Denald U. Dermon	(202)	77/-4/00	01-APK-72	23-3EF-92	
	R FLYING J TRAVEL PLAZA	400 N.W. FRONTAGE RD		97000	Trans D. Mandu	(001)	134-0400	20"FED-92		
202 NWH	HANDY BROTHERS SERVICE	146 W. COLUMBIA	TROUTDALE	97000	Ivan D. Handy	(503)	003-4732	14-JAN-92		
	MORROW'S FAIRVIEW SHELL		TROUTDALE	97000	Lnester I. Morrow	(505)	000-7220	U/-JAN-92	04 007 00	
	POUNDER OIL SERVICE, INC.		TROUTDALE	97060	Richard N. Cerruti	(503)	695-2555	09-MAR-92	01-001-92	
	R TEXACO STATION R TEXACO STATION		TROUTDALE	97060	Dale Andert	(503)	225-4257	09-MAR-92		
1314 NWR	R TEXACO STATION	2222 N.E. 238TH	TROUTDALE	97060	Dale Andert	(503)	225-4257	09-MAR-92		
2898 NWR	ARCO AM/PM MINI MART DUANE STROUPE HANEGAN'S SERVICE TEXACO STATION TUALATIN BP	7004 SW NYBERG ROAD	TUALATIN	97062	Garry & Katherine LaPoint			10-JAN-92	20-AUG-92	
7250 NWR	UUANE STROUPE	20200 S.W. STAFFORD	TUALATIN	97062	Duane Stroupe	(503)	638-3134	21-JAN-92		
188 NWR	HANEGAN'S SERVICE	18970 S.W. BOONES FERRY R	TUALATIN	97062	Richard Hanegan	(503)	692-4120	11-MAR-92	01-0CT-92	01-00
1397 NWF	R TEXACO STATION	7090 S.W. NYBERG ROAD	TUALATIN	97062	Dale Andert	(503)	225-4257	09-MAR-92		
5580 NWF	R TUALATIN BP	7035 S.W. NYBERG RD.	TUALATIN	97062	ROB FOREST	(503)	682-3865	15-JAN-92	30-SEP-92	
0411 CR	PINE HOLLOW LAKESIDE RESO	34 N. MARIPOSA DR.	WAMIC	97063	Frank Marquez	(503)	544-2271	12-MAR-92	14-SEP-92	
1362 CR	TYEE KEY LOCK	ROUTE 1, FAIRGROUNDS RD.	TYGH VALLEY	97063	Eugene Walters	(503)	328-6238	29-JAN-92		
5648 NWF	R MINI MART OF VERNONIA	490 BRIDGE ST.	VERNONIA	97064	Garold L. Settje .			25-FEB-92	28-SEP-92	
271 NWP	R SUNNYSIDE SERVICE	58360 NEHALEM HWY S.	VERNONIA	97064	Thomas & Judith Budge	(503)	429-4265	31-MAR-92	24-SEP-92	
3790 CR	BIGG'S TEXACO, HATTENHAUE	BIGG'S JUNCTION	RUFUS	97065	Doug Hattenhauer			18-FEB-92	29-SEP-92	
2948 CR	BIGGS AUTO TRÚCK STOP	STAR ROUTE, BOX 144	WASCO	97065	Eugene Tsubota	(503)	739-2521	24-MAR-92	30-SEP-92	
771 CR	CHEVRON U.S.A., INC 98	US 84 & HWY 97	WASCO	97065	Arel D. Middleton	(503)	739-8297	30-MAR-92	28-SEP-92	
	DINTY'S TRUCK STOP	BIGGS JUNCTION	WASCO	97065	H. C. Sanderson	(503)	739-2489	01-APR-92	28-SEP-92	
728 CR	MID COLUMBIA PRODUCERS	820 HIGHWAY 206	WASCO	97065	W. O. Conn	(503)	565-3737	21-JAN-92	30-SEP-92	
938 CR	O'MEARA, PHILIP UNOCAL 6192 UNOCAL 6223 ASTRO #301 HAYWARD'S SERVICE TEXACO STATION	CLARK & DAVIS	SHERMAN	97065	Philip O'Meara	(503)	442-5477	30-MAR-92		
118 CR	UNOCAL 6192	HWY 97 & I-84 N.	BIGGS JUNCTI	97065	Douglas Rhinehart	(503)	739-2242	27-MAR-92	30-SEP-92	
121 NWR	UNOCAL 6223	HWY 26 & WELCHES RD.	WELCHES	97067	Steven Burg	(503)	223-2108	25-MAR-92		
7531 NWR	ASTRO #301	22250 WILLAMETTE DR	WEST LINN	97068	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
3565 NWF	HAYWARD'S SERVICE	1590 SW 7TH STREET	WEST LINN	97068	R.L. Stein	(503)	656-0375	09-MAR-92	21-SEP-92	
1321 NWF	TEXACO STATION	22355 WILLAMETTE DRIVE	WEST LINN	97068	Dale Andert	(503)	225-4257	09-MAR-92		
	WEST LINN SERVICE	19120 WILLAMETTE DRIVE	WEST LINN	97068	Harvey A. Hains	(503)	636-6826	07-JAN-92	09-SEP-92	
	BURNS BROS. TRUCK STOP	8600 S.W. FLITGSEN RD	WILSONVILLE	97070	Date Andert Garry & Katherine LaPoint Duane Stroupe Richard Hanegan Date Andert ROB FOREST Frank Marquez Eugene Walters Garold L. Settje. Thomas & Judith Budge Doug Hattenhauer Eugene Tsubota Arel D. Middleton H. C. Sanderson W. O. Conn Philip O'Meara Douglas Rhinehart Steven Burg Richard Wright R.L. Stein Date Andert Harvey A. Hains L Kirk French Lee Pentecost ROB FOREST David Harris Annette Sway Robert E. Sprague Ron Halter	(503)	238-7393	20-MAR-92		
	R UNOCAL 4580	30085 SW PARKWAY	WILSONVILLE	97070	Lee Pentecost	(503)	638-3702	01-APR-92	25-SEP-92	
	WILSONVILLE CARD LOCK	30100 S LI DADVUAV		07070	ROR FOREST	(503)	682-3865	16IAN-92	25-SEP-92	
	N MILOUNVILLE CARD LUCK	0005 UTLEONVILLE DOAD		07070	David Warnie	1-800-	288-4201	15-141-02	25-SED-02	
	R WILSONVILLE SHELL	177 CDANT STREET	HOODRINN	07074	Appatta Suov	1 000-	200-4201	1/- 1/1-07	07- IIN -07	
	R BILL SCHAFFER'S TEXACO, I	1700 ADDOD COOVE DD NE		91011 07074	Annelle Sway	(507)	JEE-0001	14-348-76	02-002-92	
	R BOB'S BACKHOE SERVICE	17004 AKBOK GKOVE RD NE		9/0/1	Robert E. Sprague	(202)	701-1200	10-550-94		
	R HALTER OIL CO	ZZZI N PALIFIL HWT	WURBLIKUNCN		KINI BALTER	13431	701-0731	IUTPEDTYL		

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			ADDRESS	CITY	ZIP	CONTACT Barry Naone Ron Halter Thomas E. Smith Marc H. Nelson Timothy R. Brown ROB FOREST Clayton Johnson ROB FOREST Clayton Johnson Paulina M. Cockrum Robert A. Kankkonen Alice N. Codd Thomas J. Carmichael David Pfund Klyde Thompson Cary Bechtolt Cary Bechtolt Pat McGee Clayton Johnson Alice N. Codd Thomas E. Utti Donald Patterson William & Beatrice French R. L. Delphia	PHONE	LOI	CA	APP
154	WVR	LONERGAN OIL CO. SILVERFLEET SYSTEMS WILCO FARMERS WOODBURN CARDLOCK WOODBURN EXXON WOODBURN SHELL 469 ONE STOP ASTORIA ASTORIA - CARDLOCK ROB BERG IMPORT AUTO CENT	1580 N. PACIFIC HWY.	WOODBURN	97071	Barry Naone	(503) 731-6487	30-MAR-92	01-0CT-92	
8377	WVR	SILVERFLEET SYSTEMS	1385 INDUSTRIAL AVE.	WOODBURN	97071	Ron Halter	(503) 981-8931	10-FEB-92	22-MAY-92	
2355	₩VR	WILCO FARMERS	490 S. PACIFIC HYWAY	WOODBURN	97071	Thomas E. Smith	(503) 845-2257	10-FEB-92	01-0CT-92	
5546	₩VR	WOODBURN CARDLOCK	293 N. PACIFIC HIGHWAY	WOODBURN	97071	Marc H. Nelson	(503) 363-7676	30-JAN-92	10-SEP-92	
5384	WVR	WOODBURN EXXON	2515 NEWBERG HWY	WOODBURN	97071	Timothy R. Brown	(503) 981-0401	30-JAN-92		
7552	WVR	WOODBURN SHELL	2995 NEWBURG ROAD	WOODBURN	97071	ROB FOREST	(503) 682-3865	15-JAN-92	30-SEP-92	
1270	NWR	469 ONE STOP	469 W. MARINE DR.	ASTORIA	97103	Clayton Johnson	(503) 325-6641	22-JAN-92	21-AUG-92	
5094	NWR	ASTORIA	1701 MARINE DRIVE	ASTORIA	97103	ROB FOREST	(503) 682-3865	15-JAN-92	30-SEP-92	
1157	NWR	ASTORIA - CARDLOCK	620 ALT. HWY 101	ASTORIA	97103	Clayton Johnson	(503) 325-6641	19-MAR-92	21-AUG-92	
200	a mix	DOD DERG THI OKT MOTO CENT	000 HIGHMAN TOT ACTEMBATE	ASTORIA	97103	Paulina M. Cockrum	(503) 738-5789	30-MAR-92		
		BOB'S TEXACO		ASTORIA	97103	Robert A. Kankkonen		20-MAR-92		
		BURNS-JOHNSON BULK PLANT		ASTORIA	97103	Alice N. Codd	(503) 325-1972	17-MAR-92	01-001-92	
		CARMICHAEL-COLUMBIA OIL I		ASTORIA	97103	Ihomas J. Carmichael	(503) 325-3122	16-MAR-92	14-AUG-92	
			RT 6, BOX 240-HWY 30 & KO	ASTORIA	97103	David Prund	(503) 728-4209	18-MAR-92	29-SEP-92	
		DEL'S OK RUBBER WELDER, I		ASTORIA	97103	Klyde Inompson	(503) 325-2861	01-APR-92	03-SEP-92	•
		GEORGE'S BP SERVICE		ASTORIA	97103	Cary Bechtolt	(503) 325-1972	17-MAR-92	01-001-92	
007//	NWK	HIWAY SERVICE	3108 MARINE DRIVE	ASTORIA ASTORIA	97103	Lary Bechtolt	(203) 222-1972	17 - MAK-92	27-550-02	
7/97	NWA	VNADDA MADVET		KNAPPA	07103	Clayton Johnson	(503) 323-0130	21-JAN-92	23-367-92	
7407	NUD	LANDLICHD/S	505 HTUAY 101	ASTORIA	07103	Alice N Fodd	(503) 325-0041	17-MAR-92	21-AUG-92	
7371	NUP	JOHN DAY MINI MART KNAPPA MARKET LANDWEHR'S LUM & UTTI	1625 EVCHANCE STREET	ASTORIA	07103	Thomas E Utti	(503) 325-3/21	31-MAD-02	01-001-72	
0759	11110	WINI MADE COODSTODES	OS H MADINE DOIVE	ASTORIA	97103	Donald Patterson	(503) 325-4162	28-FFR-92	01-0CT-92	
4096	NWR	OLNEY GENERAL STORE	ROUTE 1. BOX 813	ASTORIA	97103	William & Beatrice French	(206) 325-3283	31-JAN-92	11-SEP-92	
6312	NWR	PORTWAY TEXACO	452 W. MARINE DR.	ASTORIA	97103	R. L. Delphia	(503) 325-2282	14-JAN-92	03-SEP-92	
10233	NWR	TIDE POINT	1820 S.E. FRONT	ASTORIA	97103	R. L. Delphia Ivan F. Larsen Thomas E. Utti	(503) 325-5803	30-MAR-92	17-SEP-92	
7423	NWR	TOYOTA OF ASTORIA	609 BOND	ASTORIA	97103	Thomas E. Utti	(503) 325-3421	31-MAR-92		
7684	NWR	WILD WILLIE'S ASTORIA CAR	75 W. MARINE DRIVE	ASTORIA	97103	William A. & Jere Lou Mooney	(503) 297-3451	03-FEB-92	17-AUG-92	
302	NWR	COP'S GARAGE	 ADATINE DATIVE ADATIVE ADA	BANKS	97106	David Cop	(503) 324-9401	09-MAR-92	17-AUG-92	
1908	NWR	STALEY'S JUNCTION FOOD &	RT. 1, BOX 285-A	BANKS	97106	Ron Cain	(503) 357-9711	09-JAN-92	28-SEP-92	
5491	NWR	TEXACO	182 N. MAIN ST.	BANKS	97106	John Linn	(503) 324-2622	10-JAN-92	11-MAY-92	
8940	NWR	BAY CITY DELI MART	8335 HWY 101 N.	BAY CITY	97107	LEE HEFFEL	(503) 377-2002	13-JAN-92	19-MAY-92	
1506	NWR	BEAVER TEXACO	24485 HWY 101 S.	BEAVER	97108	Stan Sheldon	(503) 842-2172	26-FEB-92	22-OCT-92	
319	NWR	GARY'S CANNON BEACH SERVI	280 N. HEMLOCK	CANNON BEACH	97110	Gary Moon	(503) 436-2280	14-JAN-92	29-SEP-92	
10038	NWR	R.V. RESORT AT CANNON BEA	345 ELK CREEK RD. P.O. B	CANNON BEACH	97110	Steve Martin .	(503) 436-1197	10-JAN-92		
8941	NWR	SAGE, DOLLIE	308 3RD	CANNON BEACH	97110	Dollie Sage		25-MAR-92		
1605	WVR	REGGIE'S SHELL	150 N. YAMHILL	CARLTON	97111	Quentin & Lola Probst	(503) 538-4163	15-JAN-92	08-JUN-92	
200	WVR	UNION SERVICE STATION	SUS WEST MAIN	CARLION	97111	BOD Mason	(503) 852-7464	18-MAR-92	23-SEP-92	
4032	NWR	K & R CHEVRON	7/200 MWX 101 S	CLOVERDALE	97112	Kichard Fleming	(503) 392-3544	19-MAK-92	21-25-22	
10077	NWK	RIVERSIDE DELI"MARI	24270 MWL. 101 5.		07112		(202) 292-2244	07-141-02	24-110-02	
10012	NWK	DANULAKE BY	CUTOU SANULAKE KU.		07117	Daylon weaver	(503) 049-2231	30-MAD-02	20-400-92	
5112		DUIGHT ESTRY ENT INC.	1021 BASELINE		07117	Duight Eethy	(503) 681-0308	13-MAD-02	18-SED-02	
0662		CONTAILES SERVICE	216 FEDDY ST	DAYTON	07116	Elizabeth Foster	(503) 864-3357	13-1AN-02	01-0CT-92	
2605	LIVP	CHADIES TEDDY/S SEDVICE		DUNDEE	07115	Charles Terry	(503) 538-6/25	21-100-02	28-SEP-92	
190/	M V A	CODEST COOVE DD	2330 DACIELO AVE	FOREST GROVE	07116	Pon Cain	(503) 357-9711	00- IAN-92	30-559-02	06-MAR-92
4501	NUD	FOREST GROVE CARD LOCK	2705 PACIFIC AVE	FOREST GROVE	97116	ROB FOREST	(503) 682-3865	16-JAN-92	25-SEP-92	** 11IN 76
1804	NUR	FOREST GROVE FLYING /A/	2134 19TH AVE	FOREST GROVE	97116	Ron Cain	(503) 357-9711	09-JAN-92	25-SEP-92	
1808	NUR	GALES CREEK MORTI	STAR ROUTE, BOX 625	FOREST GROVE	97116	Ron Cain	(503) 357-9711	09-JAN-92	30-SEP-92	20-NOV-92
7169	NWR	HARRIS ENTERPRISES. INC.	3510 PACIFIC AVE.	FOREST GROVE	97116	Thomas E. Utti Thomas E. Utti William A. & Jere Lou Mooney David Cop Ron Cain John Linn LEE HEFFEL Stan Sheldon Gary Moon Steve Martin Dollie Sage Quentin & Lola Probst Bob Mason Richard Fleming Kenneth & Linda Seal Daymon Weaver Paul D. Tornblad Dwight Estby Elizabeth Foster Charles Terry Ron Cain ROB FOREST Ron Cain ROB FOREST Ron Cain	(503) 682-3865	15-JAN-92	25-SEP-92	
1910	NUR	L. P. BUSCH. INC.	2624 PACIFIC AVE.	FOREST GROVE	97116	Ron Cain	(503) 357-9711	09-JAN-92	30-SEP-92	
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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT Gerald & Marie LaMar Charles Anderson Larry Jackson Tim Pearson Peggy Brown Ben Brantingham Stan Sheldon Robert A. Pillar Ralph Etheridge George 1 & Jo Adams Harold C. Hendriksen Rosalie Rogers Clayton Johnson Sharon Douglas John Phimister Andy Bretthauer Dwight Estby ROB FOREST Ron Cain Charles P. Swarts Dwight Estby Matthew B. Petrich Lloyd Williamson Dale Andert Robert Stark Richard Duyck Ralph Martin David E. Williams Dwight Sturn ROB FOREST Jere Laughlin ROB FOREST Janine Barrett Charles E. Laughlin Sue Gentry Sue Gentry Jere Laughlin Dale Andert Melvin D. Jansen Clayton Johnson Stan Sheldon David Fox Brent Leathers Archie & Mary Morris Jere Laughlin Robert W. Alexander Sue Gentry Marlene Carter Bernard Nelson David May	PHONE		LOI	CA	APP
7335	NWR	GALES CREEK COUNTRY STORE	INTERSECTION HWY 8/OLD WI	GALES CREEK	97117	Gerald & Marie LaMar	(503)	357-3942	23-JAN-92	16-SEP-92	22
8794	NWR	BARVIEW JETTY COUNTY PARK	TILLAMOOK COUNTY PARKS	GARIBALDI	97118	Charles Anderson	(503)	322-3477	25-FEB-92		
8062	NWR	DAN'S UNOCAL SERVICE	511 GARIBALDI ST.	GARIBALDI	97118	Larry Jackson	(503)	738-5833	08-JAN-92	26-0CT-92	
788	NWR	G & G MINI MART	203 GARIBALDI AVE. E.	GARIBALDI	97118	Tîm Pearson			23-MAR-92	17-AUG-92	
8408	NWR	GARIBALDI SEAFOOD AND CHA	606 COMMERICAL	GARIBALDI	97118	Peggy Brown	(503)	322-0007	10-MAR-92		
7293	NWR	OLD MILL MARINA RESORT, I	210 S. THIRD ST.	GARIBALDI	97118	Ben Brantingham	(503)	322-0324	27-MAR-92		
1510	NWR	SHELDON'S TEXACO AND MUFF	701 GARIBALDI AVE	GARIBALDI	97118	Stan Sheldon	(503)	842-2172	26-FEB-92	22-0CT-92	
9974	NWR	THE PIER	605 BIAK AVENUE/P.O.BOX 5	GARIBALDI	97118	Robert A. Pillar	(503)	322-0333	14-FEB-92	06-0CT-92	
9868	NWR	TRIAD FISHERY	601 A COMMERCIAL/BOAT BAS	GARIBALDI	97118	Ralph Etheridge	(503)	377-2592	20-MAR-92	15-SEP-92	
7411	NWR	CORKEY'S	1180 PACIFIC DR.	HAMMOND	97121	George L & Jo Adams	(503)	861-2668	28-JAN-92	22-\$EP-92	
625	NWR	HENDRIKSEN DOCKS, INC.	HAMMOND BOAT BASIN	HAMMOND	97121	Harold C. Hendriksen	(503)	325-5701	13-JAN-92	21-SEP-92	
10003	NWR	ROGERS, ROSALIE	918 PACIFIC	HAMMOND	97121	Rosalie Rogers	(503)	861-1211	31-MAR-92	22-\$EP-92	
1165	NWR	TANSEY PT. FUEL DOCK	N.W. 14TH ST.	HAMMOND	97121	Clayton Johnson	(503)	325-6641	19-MAR-92		
3930	NWR	ARCO SS #815	105 W. BASELINE	HILLSBORO	97123	Sharon Douglas	(310)	407-2603	01-0CT-92	01-0CT-92	
6272	NWR	ASIRO #218	373 S.E. BASELINE	HILLSBORO	97123	John Phimister	(503)	243-7899	09-JAN-92	21-SEP-92	
5822	NWR	BRETTHAUER OIL COMPANY	453 WEST WASHINGTON	HILLSBORD	97123	Andy Bretthauer			17-MAR-92	23-SEP-92	
7551	NWR	ESTBY ENTERPRISES CORP.	1729 N.E. CORNELL ROAD	HILLSBORD	97125	Dwight Estby	(503)	681-0308	13-MAR-92	18-SEP-92	
6/10	NWK	HARRIS ENTERPRISES, INC.	118 E. UAK SI.	HILLSBORD	97125	ROB FOREST	(503)	682-3865	15-JAN-92	25-SEP-92	o/
1905	NWK	HILLSBORD MOBIL CAR WASH	835 E. BASELINE	HILLSBORD	97123	Ron Cain	(505)	357-9711	U9-JAN-92	30-SEP-92	UO-MAR-92
7819	NWR	LAUREL VALLET STORE	14025 SW CAMPBELL RD.	HILLSBORD	97123	Lharles P. Swarts	(505)	628-2060	51-JAN-92	01-001-92	
8203	NWR	PEAVEY UIL CU.	B/4 BASELINE	HILLSBORD	97123	DWIGHT ESTDY	(505)	681-0308	05-FEB-92	18-SEP-92	
7007	NWK	CTANTON CUDANN LDD CO	ZOYID S.W. SCHULLS-FERKT	HILL CROPO	97122	Matthew B. Petrich	(503)	020-1020	19-MAR-92	20.050.02	
17/2	NWK	STANION CUDANI LBR CO.	1000 C. THALATTH VALLEY	HILLSBORD	97122	Dele Indent	(503)	040-0001	23-MAK-92	29-254-92	
1042	NWK	THIN ONE ATOM	12/05 SLE TUALATIN VALLET	HILLSBORD	97123	Pohost Stork	(503)	428-2817	109-MAK-92 20-WAB-02		
8286	NWA	LASHINGTON COUNTY EIDE DI	15200 SU HIDUAY POAD	HILLSBORD	07123	Richard Duwck	(503)	6/8-6728	25-MAD-02	30-559-02	
8502	NUD	DAIDU MADTIN	9900 NU CIENCOE PD	NORTH DIAINS	97124	Rainh Martin	(503)	647-2268	15- IAN-92	15-MAY-02	
2262		DAVE/S SHELL	AAS N ADAMS ST	MCMINNVILLE	97128	David F Villiame	(503)	472-4074	24-FFR-92		
9765		DWIGHT/S AUTO SERVICE	640 F. THIRD STREET	MCMINNVILLE	97128	Dwight Sturn	(503)	472-2934	21-FFR-92	15IIIN-92	
7172	WVR	HARRIS ENTERPRISES INC.	1720 HIGHWAY 99 WEST	MCMINNVILLE	97128	ROR FOREST	(503)	682-3865	15-JAN-92	25-SEP-92	
7145	WVR	LAUGHLIN, CHARLES E.	1920 LAFAYETTE AVE. (P.O.	MCMINNVILLE	97128	Jere Laughlin	(503)	472-7215	13-JAN-92	21-SEP-92	
6662	WVR	LINFIELD COLLEGE	900 S. BAKER ST.	MCMINNVILLE	97128	ROB FOREST	(503)	682-3865	27-MAR-92	25-SEP-92	
4899	WVR	MCMINNVILLE GULL #421	1249 SOUTH BAKER ST.	MCMINNVILLE	97128	Janine Barrett	(206)	624-5900	30-MAR-92	01-007-92	
9094	WVR	OASIS SHELL	2151 THREE MILE LANE	MCMINNVILLE	97128	Charles E. Laughlin	(503)	472-7215	13-JAN-92		
8496	WVR	PEAVEY OIL CO.	101 N. HWY. 99W	MCMINNVILLE	97128	Sue Gentry	(503)	472-6138	05-FEB-92	24-SEP-92	
4964	WVR	PEAVEY OIL SOUTH MAC	2005 S.W. HWY. 99W	MCMINNVILLE	97128	Sue Gentry	(503)	472-6138	05-FEB-92	24-SEP-92	
349	WVR	ROADRUNNER SHELL	1347 N. BAKER	MCMINNVILLE	97128	Jere Laughlin	(503)	472-7215	30-MAR-92	21-SEP-92	
1340	WVR	TEXACO STATION	1048 N. HWY. 99 & MCDONAL	MCMINNVILLE	97128	Dale Andert	(503)	225-4257	09-MAR-92		
2301	WVR	WEST VALLEY FARMERS	2741 N. 99W	MCMINNVILLE	97128	Melvin D. Jansen	(503)	472-6154	19-FEB-92	25-AUG-92	
1228	NWR	JOHNSON OIL OF MANZANITA	848 HWY 101	MANZANITA	97130	Clayton Johnson	(503)	325-6641	19-MAR-92	21-AUG-92	
1511	NWR	BAYSIDE GARDENS TEXACO AN	36453 HWY 101	NEHALEM	97131	Stan Sheldon	(503)	842-21/2	26-FEB-92	22-0CT-92	
10086	WVR	FOX TOWING & GAS	1902 PORTLAND RD.	NEWBERG	97132	David Fox	(503)	538-4525	02-MAR-92	20-JUL-92	
4259	WVR	LEATHERS OIL CO.	203 E 1ST ST.	NEWBERG	97132	Brent Leathers	(503)	661-1244	10-JAN-92	25-AUG-92	28-JAN-92
9867	WVR	MORRIS TEXACO	101 E 1ST STREET	NEWBERG	97132	Archie & Mary Morris	(503)	538-0512	10-JAN-92	15-SEP-92	
7147	WVR	NEWBERG ARCO	1400 PORTLAND RD.	NEWBERG	97132	Jere Laughlin	(503)	472-7215	13-JAN-92	21-SEP-92	
7340	WVR	PACIFIC PRIDE	2600 E. HANCOCK ST.	NEWBERG	97132	Robert W. Alexander	(503)	538-2513	23-MAR-92	10-JUN-92	
2199	WVR	PEAVEY OIL CO., NEWBERG	204 S.W. HWY. 99W	NEWBERG	97132	Sue Gentry	(503)	472-6158	UD-FEB-92	24-522-92	
10058	NWR	KIWANDA FISH CO.	35145 WEBB PARK KD.	PACIFIC CITY	9/135	Mariene Carter	(505)	702-7047	20-MAK-92	20-3EF-92	
9729	NWR	NESTUCCA COUNTRY	JAGDU BRUUTEN RUAD	PAGIFIC LIT	9/132	Bernard Nelson	(202)	372"3004	30-JAN-72	17-5EF-72	
222	NWK	DAVE MAT UNEVKUN	IND N. HWI IUI	ROCKAWAI	71 130	David May	(202)	JJJ 2440	10 110 72	11 OLF 76	

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Statewide Summary Report - Zip Code Order

		FAC NAME	ADDRESS	CITY	ZIP	CONTACT W. V. Thurman K.L. Snuggerud Thomas E. Smith Alice N. Codd Jon G. Blissett Delbert Folk Don Holt Pete & Gaynelle Bourikas Fred E. Nelson ROB FOREST David L. Morgan Clayton Johnson Janine Barrett Teresa Morrisey ROB FOREST Stan Sheldon Kathleen Brennan Linda K. Begeal Bob Wirth John R. Brennan Richard Mikesell Robert Nelson Jayne Sheppard Robert C. Wester Ryan Ratcliffe Robert Richey Paul Keen David Harris David Wiks Don Averill ROB FOREST Margaret M. Johnson David Harris Terrance Joseph Riverman R. L. Delphia Harold C. Hendriksen Cary Bechtolt James W. Neilson Ronald A. Moore Wanda Senz Ed Attrash Tom Portele John E. Shepanek BARBARA RILEY Richard P. Buono Sterling Griffiths Susan J. Spicer Chuck Greenough John Phimister John Phimister	PHONE	LOI	CA	APP
02	75 MH	SHOREWOOD TRAVEL TRAILER SNUGGERUD, K.L. WILCO FARMERS B.P. OF SEASIDE BLISSETT,JON G.	17600 OCEAN RIVD	ROCKAWAY	07174	11 M Thurmon	(E07) E01.9070	10- 00-02		
,2,	50 MH10	SHUCCEDUD KI	1970 N HUY 101	ROCKAWAT	07174		(503) 391-0970	10-JAN-92	37-CED-03	
12	17 NWA	HILCO ENDWEDC	1040 N. AWI 101 107 N.C. MATH	RUCKAWAT	71130	K.L. Shuggeruu Thamaa E Caith	(202) 222-21/2	10-JAN-92	23-3CF-92	
12	10 WVW C1	WILLU FARMERS	104 N.E. MAIN	ST. PAUL	9/15/	Inomas E. Smith	(503) 845-2257	IU-FEB-92	01-061-92	
22	27 NWA	B.P. OF SEASIDE	620 S. HULLADAY	SEASIDE	97138	ALICE N. CODD	(503) 325-1972	17-MAR-92	01-001-92	
95	15 NWH	BLISSEIL, JON G.	PACIFIC WAY & COTTAGE ST.	GEARHART	97138	Jon G. Blissett	(503) /38-/383	30-MAR-92		
10	IS NWH	CHEVRON U.S.A., INC 95	1215 S. HOLLADAY DR.	SEASIDE	97138	Delbert Folk	(503) 738-3656	13-JAN-92	17-AUG-92	
1	34 NWF	CHEVRON U.S.A., INC 95 DON'S UNION SERVICE GEARHART TEXACO H & S THOMPSON ENT. MAGILL'S	1616 S. HOLLADAY	SEASIDE	97138	Don Holt	(503) 738-9917	19-FEB-92	25-SEP-92	
63	23 NWH	GEARHARI IEXACO	GEARHART JUNCTION	GEARHART	97138	Pete & Gaynelle Bourikas	(503) /38-5333	01-APR-92	03-SEP-92	
60	CZ NWH	H & S THOMPSON ENT.	1575 S. HOLLADAY - PO BOX	SEASIDE	97138	Fred E. Nelson	(503) /38-3233	U8-JAN-92	70 00	
50	78 NWH	MAGILL'S	2525 S. HULLADAY	SEASIDE	97138	ROB FOREST	(503) 682-3865	15-JAN-92	30-855-92	
70.	JU NW H	MUKGAN MARI, ING. (ELDERB	ELSIE ROUTE, BUX 645	SEASIDE	97138	David L. Morgan	(503) 755-2739	04-FEB-92	~ ~ ~ ~ ~	
11	52 NWA	SEASIDE ARCO	231 S. HOLLADAY	SEASIDE	97138	Clayton Johnson	(503) 325-6641	25-MAR-92	21-AUG-92	
48	71 NWR	SEASIDE GULL #411	1883 S. HOLLADAY	SEASIDE	97138	Janine Barrett	(206) 624-5900	30-MAR-92	01-0CT-92	
41.	SZ NWR	SEASIDE ARCO SEASIDE GULL #411 SEASIDE STOP & GO, INC.	860 S. ROOSEVELT	SEASIDE	97138	Teresa Morrisey	(503) 738-3587	27-JAN-92	21-SEP-92	
66	J7 NWR	HARRIS ENTERPRISES, INC.	120 N. PINE	SHERWOOD	97140	ROB FOREST	(503) 682-3865	15-JAN-92	25-SEP-92	
		15 MAIN TEXACO	-15 MAIN AVE. 3760 HWY 101 N. 48400 WILSON RIVER HWY. (TILLAMOOK	97141	Stan Sheldon	(503) 842-2172	26-FEB-92	22-OCT-92	
		B.P. STATION NORTH	3760 HWY 101 N.	TILLAMOOK	97141	Kathleen Brennan	(907) 276-1607	29-JAN-92	09-SEP-92	
14	56 NWR	BEGEAL, WILLIAM K.	48400 WILSON RIVER HWY. (TILLAMOOK	97141	Linda K. Begeal	(503) 842-8766	06-FEB-92		
34	55 NWR	BOB WIRTH MOTORS, INC.	502 MAIN AVE.	TILLAMOOK	97141	Bob Wirth	(503) 842-4459	19-MAR-92		
		BRENNAN'S B.P. STATION	603 PACIFIC AVE.	TILLAMOOK	97141	John R. Brennan	(503) 842-6355	22-JAN-92	25-AUG-92	
3	28 NWR	BRENNAN/NELSON	2901 1/2 3RD	TILLAMOOK	97141	Richard Mikesell	(503) 928-3385	23-JAN-92	07-AUG-92	
23	55 NWR	DON'S ARCO	8TH & MAIN	TILLAMOOK	97141	Robert Nelson	(503) 842-2834	04-FEB-92		
109	79 NWR	DON'S ARCO ERSKINE OIL, INC GARY & BOB'S CAR CONNECTI	4 ELM AVE	TILLAMOOK	97141	Jayne Sheppard	(503) 842-4721	25-MAR-92	01-0CT-92	
30	50 NWR	GARY & BOB'S CAR CONNECTI	814 MAIN	TILLAMOOK	97141	Robert C. Wester	(503) 842-2324	10-FEB-92		
22	38 NWR	KWIK GAS & MART	603 PACIFIC AVE. 2901 1/2 3RD 8TH & MAIN 4 ELM AVE 814 MAIN 1015 PACIFIC	TILLAMOOK	97141	Ryan Ratcliffe	(503) 842-8026	07-FEB-92	18-JUN-92	
83	50 NWF	LIL KICHET'S MAKKET	10900 WILSON RIVER HWT.	TILLAMOOK	97141	Robert Richey	(503) 842-8820	13-JAN-92	23-JUL-92	
35	57 NWF	RUSSELL CHEVROLET CO., IN	1 MAIN AVE.	TILLAMOOK	97141	Paul Keen	(503) 842-2542	25-FEB-92		
91	37 NWF	SHILO DELI MART SOUTH PRARIE STORE SUNSET SERVICE TILLAMOOK TRASKVIEW STORE VANWEST OIL CO.	2525 N MAIN	TILLAMOOK	97141	David Harris	1-800-288-4201	01-APR-92		
95	27 NWF	SOUTH PRARIE STORE	6730 SOUTH PRAIRIE RD.	TILLAMOOK	97141	David Wilks		14-FEB-92	24-SEP-92	
4	B7 NWF	SUNSET SERVICE	403 PACIFIC AVE.	TILLAMOOK	97141	Don Averill	(503) 842-5189	25-MAR-92		
50	95 NWR	TILLAMOOK	303 PACIFIC	TILLAMOOK	97141	ROB FOREST	(503) 682-3865	15-JAN-92	30-SEP-92	
15	20 NWR	TRASKVIEW STORE	26905 TRASK RIVER RD.	TILLAMOOK	97141	Margaret M. Johnson	(503) 842-6035	27-MAR-92	27-AUG-92	
50	79 NWR	VANWEST OIL CO.	2903 3RD ST.	TILLAMOOK	97141	David Harris	1-800-288-4201	01-APR-92		
19	36 NWR	NETARTS GROCERY AND TEXAC	4945 NETARTS HWY. WEST	NETARTS	97143	Terrance Joseph Riverman	(503) 842-4621	24-MAR-92	18-AUG-92	
		DEL & DAVE BODIE CHEVRON		WARRENTON	97146	R. L. Delphia	(503) 325-2282	14-JAN-92	03-SEP-92	
		HARTLEY, W C	120 SE HARBOR DR	WARRENTON	97146	Harold C. Hendriksen	(503) 325-5701	13-JAN-92	21-SEP-92	
		WARRENTON MOBIL SERVICE		WARRENTON	97146	Cary Bechtolt	(503) 325-1972	17-MAR-92	01-0CT-92	
		WHEELER MARINA	278 MARINE DRIVE	WHEELER	97147	James W. Neilson	(503) 368-5780	20-MAR-92	15-SEP-92	
		MOORES YAMHILL CORNER MAR		YAMHILL	97148	Ronald A. Moore	(503) 662-4403	12-MAR-92	01-0CT-92	29-SEP-92
		SENZ AUTO SERVICE	210 S. MAPLE	YAMHILL	97148	Wanda Senz	(503) 662-4770	16-MAR-92	22-SEP-92	
			1967 S.W. FOURTH	PORTLAND	97201	Ed Attrash	(503) 224-5353	18-MAR-92	22-SEP-92	
		GREYHOUND LINES INC	2521 SW WATER AVENUE	PORTLAND	97201	Tom Portele	(214) 698-4675	01-APR-92		
		HANNA CAR WASH	6869 N LOMBARD	PORTLAND	97201	John E. Shepanek	(503) 265-9274	01-APR-92		
81	11 NWR	SUNSET FUEL COMPANY, MACA	6230 S.W. MACADAM	PORTLAND	97201	BARBARA RILEY	(503) 234-0611	27-FEB-92	28-SEP-92	
79	37 NWR	UNIVERSITY CENTER PARKING	1851 S.W. 5TH AVENUE	PORTLAND	97201	Richard P. Buono	(503) 624-6300	30-MAR-92		
9	74 NWR	UNOCAL 4548	1747 S.W. JEFFERSON	PORTLAND	97201	Sterling Griffiths	(503) 224-8618	01-APR-92		
		UNOCAL 5664	110 S.W. ARTHUR ST.	PORTLAND	97201	Susan J. Spicer	(503) 292-7285	01-APR-92		
95	B4 NWF	ANDY'S AUTO SUPPLY, INC		PORTLAND	97202	Chuck Greenough		21-JAN-92	01-007-92	
		ASTRO #238 ASTRO 201	4027 S.E. 39TH	PORTLAND	97202	John Phimister	(503) 243-7899	09-JAN-92	21-SEP-92	
62	D3 NWR	ASTRO 201	3911 S.E. POWELL	PORTLAND	97202	John Phimister	(503) 243-7899	09-JAN-92	21-SEP-92	

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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT Jim Lyons William Banach John E. Shepanek Virginia L. Montag BARBARA RILEY Victor Seger David C. Ax ROB FOREST Joseph B Kent Terry Pyle David Herman Robert B. Sutherland Howard Carver Jim Pliska ROB FOREST John R. Ellis Dick West Joel Meyer Donald H. Hartvig Brent Leathers Trung Luong Richard Wallace Ron Cain Rodney Lee Dale Andert Richard Wright James E. Thompson Michael A. Fitz ROB FOREST Bob Shores Sandra Gaylord Sandra Gaylord Sandra Gaylord Sandra Gaylord Robert Rash Barbara Johnstone Curtis McCracken Michael A. Fitz ROB FOREST Hal Boyd David L. Morris Rodger W. Jenkins Linda Sevier Michael A. Fitz Michael A. Fitz Marla J. Gardner Linda Sevier BARBARA RILEY Dale Andert	PHONE		LOI	CA	APP
9353	NWR	HANNA 914 HETTERVIG, PAUL A. J.E.S. & SONS MONTAG OIL, INC.	5124 SE 17TH STREET	PORTLAND	97202	Jim Lyons	(503)	659-0361	24-FEB-92	30-SEP-92	
301	NWR	HETTERVIG, PAUL A.	7223 S.E. 39TH	PORTLAND	97202	William Banach	(503)	771-5457	22-JAN-92	30-SEP-92	
9345	NWR	J.E.S. & SONS	2920 SE 10TH AVENUE	PORTLAND	97202	John E. Shepanek	(503)	265-9274	01-APR-92	14-sep-92	
297	NWR	MONTAG OIL, INC.	2528 S.E. HOLGATE BLVD.	PORTLAND	97202	Virginia L. Montag	(503)	234-4301	01-APR-92		
8115	NWR	SUNSET FUEL COMPANY, BURC	2944 S.E. POWELL BLVD.	PORTLAND	97202	BARBARA RILEY	(503)	234-0611	27-FEB-92	28-SEP-92	
		TACOMA STREET STATION		PORTLAND	97202	Victor Seger	(503)	636-6149	26-FEB-92	17-AUG-92	
8104	NWR	BARNES AUTO UNLOADING FAC	10822 N SWIFT COURT	PORTLAND	97203	David C. Ax	(313)	952-2169	01-APR-92		
- 6709	NWR	FESSENDEN BP LOMBARD BP PLAID PANTRY #83 PORT SERVICE CO. ST. JOHN'S TEXACO UNOCAL 3911 SPACE AGE FUEL MADISON RACK BUG WORKS	6820 N. FESSENDEN	PORTLAND	97203	ROB FOREST	(503)	682-3865	15-JAN-92	25-SEP-92	
(515	NWR	LUMBARD BP	DIDI N. LOMBARD	PORTLAND	97203	Joseph B Kent	(503)	286-4303	15-JAN-92	30-SEP-92	
4/00	NWK	PLAID PANIKI #65	9101 NUKIH LUMBARD	PORTLAND	97203	lerry Pyle	(503)	040-4240	10-MAK-92	30-SEP-92	
2200	NWK	PUKI SERVILE LU.	9123 N. BRADFURD	PORTLAND	97202	David Herman Debest B. Suthesland	(202)	200-0321	14-JAN-92	00-001-92	
042	NWK	UNDERT 3011	7000 NUKIA LUMBARD SI.	PORTLAND	97203	Robert B. Sutherland	(503)	221-1141	19-MAK-92 21-EEP-02	07-001-92	
8/02	NUD		1121/ SE DOUELL RIVD	PORTLAND PORTLAND	97202	him Blicks	(503)	043-0321	21-FED-92	10-050-02	
6600	MUD	MADISON DACK	1717 S W MADISON	PORTLAND	07204		(503)	682-3865	15_ IAN-02	75-552-02	
10975	NUD	BUG HODES -	-5000 SE 72ND	PORTLAND	07205	tobe B Ellie	(503)	501-9757	31_WAD_02	23-367-72	
5503	NUD	DICY WEST AUTO & MADINE	5909 SE 72ND 6013 SE 82ND		97200	Dick Nest	(503)	77/_/030	22- TAN-02	28-CED-02	
9120	NUD	FOSTER RENTALS	5100 SE EOSTER		07206	loat Meyer	(805)	/07-0105	20-MAD-02	20-3LF 72	
6110		FRANKO #94	7474 S F 72ND	PORTLAND	07206	Donald H Hartvia	(503)	205-2668	01-100-07		
4254	NUR	LEATHERS OIL CO	5434 S F 72ND	PORTIAND	97206	Brent Leathers	(503)	661-1266	10168-02	25-410-02	30-141-02
7841	NUR	LUONG'S TEXACO SERVICE	7210 S E FLAVEL ST	PORTIAND	97206		(503)	774-5705	23-MAD-02	22-050-02	JO BAN 72
9132	NUR	NICK'S TEXACO	6503 SE 52ND	PORTI AND	97206	Richard Wallace	()037	114 5105	12-FFR-92	10HIN-92	
1917	NUR	POWELL BP	5727 S.E. POWELL BLVD.	BORTLAND	97206	Ron Cain	(503)	357-9711	09-JAN-92	30-SEP-92	21-FEB-92
684	NWR	SHO'S AUTO REPAIR	5301 S.E. 52ND	PORTIAND	97206	Rodney Lee	(503)	774-2115	23-MAR-92	<i>Jo dei 74</i>	2 22 / 4
1330	NWR	BUG WORKS DICK WEST AUTO & MARINE FOSTER RENTALS FRANKO #94 LEATHERS OIL CO. LUONG'S TEXACO SERVICE NICK'S TEXACO POWELL BP SHO'S AUTO REPAIR TEXACO STATION CARDINAL PETROLEUM INC. RADIO CAB CO. STARK & NORRIS CO 29TH AVE CARDLOCK BOB SHORES BP CARSON OIL CO., INC. CARSON OIL CO., MCC.	4228 S.E. WOODSTOCK	PORTLAND	97206	Dale Andert	(503)	225-4257	09-MAR-92		
7546	NWR	CARDINAL PETROLEUM INC.	1909 W. BURNSIDE	PORTLAND	97209	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
5173	NWR	RADIO CAB CO.	1613 N.W. KEARNEY	PORTLAND	97209	James E. Thompson	(503)	226-7319	27-MAR-92		
3880	NWR	STARK & NORRIS CO	1703 N.W. 16TH	PORTLAND	97209	Michael A. Fitz	(503)	283-1256	21-JAN-92	01-0CT-92	
3617	NWR	29TH AVE CARDLOCK	3037 N.W. 29TH AVE.	PORTLAND	97210	ROB FOREST	(503)	682-3865	16-JAN-92	25-SEP-92	
4550	NWR	BOB SHORES BP	2110 NW LOVEJOY ST.	PORTLAND	97210	Bob Shores			14-JAN-92	22-SEP-92	
5103	NWR	CARSON OIL CO., INC.	2169 N.W. THURMAN ST.	PORTLAND	97210	Sandra Gaylord	(503)	224-8500	23-JAN-92	01-0CT-92	
3066	ŃWR	CARSON OIL COMPANY	3125 N.W. 35TH AVE.	PORTLAND	97210	Sandra Gaylord	(503)	224-8500	23-JAN-92	11-SEP-92	
3494	NWR	J & H BP SERVICE	6215 N.W. ST. HELENS RD.	PORTLAND	97210	Robert Rash	(503)	845-2261	23-MAR-92	18-JUN-92	
1572	NWR	L & J HYDRAULICS CO.	2150 N.W. 29TH	PORTLAND	97210	Barbara Johnstone	(503)	248-0228	31-MAR-92		
8085	NWR	MCCRACKEN MOTOR FREIGHT,	3147 N.W. FRONT ST.	PORTLAND	97210	Curtis McCracken	(503)	222-4291	31-MAR-92		
1050	NWR	SPECIAL ASPHALT PRODUCTS,	3537 N.W. ST. HELENS RD.	PORTLAND	97210	Michael A. Fitz	(503)	283-1256	21-JAN-92	01-0CT-92	
6630	NWR	JARRETT LARSEN OIL COMPANY PORTLAND YACHT CLUB	5829 N.E. UNION AVE.	PORTLAND	97211	ROB FOREST	(503)	682-3865	15-JAN-92	30-SEP-92	
(465	NWK	LARSEN UIL COMPANY	2500 N.E. COLUMBIA BLVD.	PORTLAND	97211	Hal Boyd	(503)	287-8510	14-JAN-92	12-JUN-92	
7009	NWK	PURILAND TACHI CLUB	1241 N.E. MARINE DR.	PORTLAND	97211	David L. Morris	(503)	282-1922	23-MAK-92		
7185	NWK	RODGERS MARINE ELECTRONIC	3417 N.E. MARINE DRIVE	PORTLAND	97211	Rodger W. Jenkins	(503)	287-1101	20-MAR-92		
9038	NWK	SEVIER'S SERVICE	TIUT NE ALBERTA	PORTLAND	97211	Linda Sevier	(202)	20/-0202	23-MAR-92	20-322-92	
20/1	NWR	STAR UIL CO.	2007 S.E. DUIN	PORTLAND	97211	Michael A. Fitz	(202)	203-1220	21-JAN-92	01-001-92	
2491	NWK	STAK UIL LU.	4301 SE 1/1H	PURILAND	97211	Michael A. Filz	(505)	203-1230	21-JAN-92	01-001-92	
0507	NWK	SEVIER'S SERVICE STAR OIL CO. STAR OIL CO. STAR-OILCO TUAN AUTO SERVICE UNION AVE CARDLOCK	12301 N. FURGE	PORTLAND	97211	Michael A. Fitz	(203)	203-1270	21-JAN-92	01-001-72 22-NAV-02	
6517	NWK	TUAN AUTU SEKVICE	1400 N.E. KILLINGSWURTH	PORTLAND	97211	LUAN ANN NGUYEN	(202)	200"JY21	20-MAK-72	22"MAI 72	
000Y	NWK	UNION AVE LARPLUCK	1050 NE COLUMPIA DIVO (11		97211	KUB FUKESI Magia 1 Cardner	(202)	277-002	10-JAN-74	23-327-92	
		WESTERN CONTAINER TRANSPO SEVIER #2	1457 N.E. FREMONT ST.	PORTLAND	07212	linda Sevier	(507)	317-0024 387-0363	01-AFK-72	24-35F-72 28-5FD-02	
				PORTLAND	07212	RARRARA RILEY	(503)	234-0611	27-FFR-92	28-SEP-92	
		TEXACO STATION	16 N.E. SHAVER 1714 N.E. 33RD AVE.	PORTLAND	97212	Dale Andert	(503)	225-4257	09-MAR-92		
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FAC ID	REG	FAC NAME	ADDRESS	СІТҮ	ZIP	CONTACT Robert F. & Clara Epley Sharon Douglas John Kim Ervin R. Roberson George Bradish Dale Andert ROB FOREST L Kirk French James Caputo Sandra Gaylord Richard Morelli Jerome A. Groth Jason Powell Robert Vincent Jim Pliska William B. Frank Dale Andert Ron Cain Tuyen Tran Garry Small John Phimister Garry Small Barry J. Desbiens Richard Wright Richard Wright Richard Wright Fred Jubitz Thomas McKinney ROB FOREST Richard Wright Jason Powell Jason Powell Joseph Rak Lisa Lombard Carol Luckeroth Michael A. Fitz Eddie L. Hendrikson D. James Bao Randall Thomas ROB FOREST Jason Powell Dwight Estby ROB FOREST Susan E. Brown Richard Brinkley	PHONE		LOI	CA	APP
8435	NWR	A-1 OIL CO. ARCO SS #873 BP MART ERVIN R. ROBERSON PACIFICORP CREDIT INC	1013 N.E. 62ND AVE.	PORTLAND	97213	Robert F. & Clara Epley	(206) 83	35-3528	10-FE8-92		
3931	NWR	ARCO SS #873	5710 N.E. FREMONT	PORTLAND	97213	Sharon Douglas	(310) 40	07-2603	01-001-92	01-0CT-92	
10414	NWR	BP MART	6007 NE GLISAN	PORTLAND	97213	John Kim	(503) 23	32-7415	16-JAN-92	21-SEP-92	
7597	NWR	ERVIN R. ROBERSON	5820 N.E. GLISAN ST.	PORTLAND	97213	Ervin R. Roberson	(503) 23	34-2581	06-FEB-92	29-SEP-92	
9346	NWR	PACIFICORP CREDIT INC	8104 NE GLISAN	PORTLAND	97213	George Bradish	(503) 27	74-6433	01-APR-92	29-SEP-92	
854	NWR	PACIFICORP CREDIT INC TEXACO STATION 7TH & ALDER CARDLOCK BURNS BROS, INC. CAPUTO SHELL SERVICE CARSON OIL CO, INC. MORELLI'S TEXACO MR CAR WASH POWELL DISTRIBUTING CO., PACE FENTRAL INC	5636 N.E. SANDY BLVD.	PORTLAND	97213	Dale Andert	(503) 22	25-4257	09-MAR-92	25 050 02	
1/1	NWR	7TH & ALDER CARDLOCK	635 S.E. /IH	PORTLAND	97214	ROB FOREST	(503) 60	82-3865	16-JAN-92	25-SEP-92	
2002	NWR	BURNS BRUS, INC.	1525 C.E. LADD AVE		97214	L KIRK French	(503) 23	38-7393 71-7600	20*MAK*92	0/-850-02	
- 37.22	NWK	CAPOID SHELL SERVILE	1208 S.C. LAUD AVE. 1208 S.C. STU ST	PORILAND	07214	Sandra Caviord	(503) 77	26-8500	21-JAN-92	11_SEP-92	
.14/5	NUD	MODELLI'S TEVACO	TOGASE MANTHONE RIND		07214	Dichard Morelli	(503) 27	24-0300	23- JAN-92	1/-SEP-92	
0354	NUP	MP CAP LIASH	510 SE CRAND AVENUE		07214	lerome A Groth	(503) 2	35-0760	24-MAR-02	25-SEP-02	
6070	NUP	POWELL DISTRIBUTING CO	734 S F MORRISON		07214	Jason Powell	(503) 2	80-5558	28-FFR-92	16-SEP-92	
8805	NLID	PACE CENTRAL INC	2304 SE BELMONT		07216	Robert Vincent	(503) 27	34-2525	01-APR-92	22-SEP-92	
8011	NUR	SPACE AGE FUEL	1237 S F HAWTHORNE BLVD	PORTLAND	97214	lim Pliska	(503) 6	65-5693	17-JAN-92	30-SEP-92	
3995	NWR	STAR OIL CO.	6410 N.E. SANDY BLVD.	PORTLAND	97214	William B. Frank	(503) 28	87-5910	23-MAR-92	00 021 74	
4881	NWR	TEXACO STATION	3840 S.E. STARK ST.	PORTLAND	97214	Dale Andert	(503) 22	25-4257	09-MAR-92		
1921	NWR	82ND AVE BP	9 S.E. 82ND AVENUE	PORTLAND	97215	Ron Cain	(503) 35	57-9711	09-JAN-92	30-SEP-92	21-FEB-92
8082	NWR	TRAN'S AUTO SERVICE	4810 S.E. BELMONT	PORTLAND	97215	Tuyen Tran	(503) 23	32-6354	31-MAR-92		
5826	NWR	VOLVO SERVICE CENTER	5710 E. BURNSIDE	PORTLAND	97215	Garry Small	(503) 77	71-7222	31-MAR-92		
6208	NWR	ASTRO #203	420 S.E. 122ND	PORTLAND	97216	John Phimister	(503) 24	43-7899	09-JAN-92	21-SEP-92	
7638	NWR	GARRY SMALL	1940 S.E. 82ND	PORTLAND	97216	Garry Small	(503) 77	71-7222	31-MAR-92		
9861	NWR	MAX MART & DELI	12128 E. BURNSIDE	PORTLAND	97216	Barry J. Desbiens	(503) 60	66-9024	16-JAN-92	17-SEP-92	
8226	NWR	PANOCO INC #31	10134 S.E. STARK STREET	PORTLAND	97216	Richard Wright	(503) 28	86-9621	06-FEB-92	06-AUG-92	
7570	NWR	POWELL DISTRIBUTING CO., RACE CENTRAL, INC SPACE AGE FUEL STAR OIL CO. TEXACO STATION &2ND AVE BP TRAN'S AUTO SERVICE VOLVO SERVICE CENTER ASTRO #203 GARRY SMALL MAX MART & DELI PANOCO INC #31 SHELL STATION #44 ASTRO #253 ASTRO QUIK MART #204 COLUMBIA RIVER YACHT CLUB	428 S.E. 82ND AVE.	PORTLAND	97216	Richard Wright	(503) 28	B6-9621	06-FEB-92	06-AUG-92	
5645	NWR	ASTRO #253	2809 N PORTLAND BLVD	PORTLAND	97217	Marla J. Gardner	(208) 37	77-0024	01-APR-92	29-SEP-92	
6211	NWR	ASTRO QUIK MART #204	7510 N. INTERSTATE	PORTLAND	97217	John Phimister	(503) 24	43-7899	09-JAN-92	21-SEP-92	
6691	NWR	COLUMBIA RIVER YACHT CLUB	201 N.E. TOMAHAWK ISLAND	PORTLAND	97217	Ira Nies	(503) 28	89-6561	14-FEB-92	30-SEP-92	
10393	NWR	GILLESPIE, FRANK	5429 N. INTERSTATE	PORTLAND	97217	Frank Gillespie	(503) 28	89-3877	09-MAR-92	24-SEP-92	
5089	NWR	INTERSTATÉ RENTALS, INC.	5420 N INTERSTATE AVE	PORTLAND	97217	Joseph Dennis	(503) 28	85-6683	21-JAN-92	25-AUG-92	
7585	NWR	JANTZEN BEACH SHELL JUBITZ TRUCK STOP	12235 N. JANTZEN DR.	PORTLAND	97217	Richard Wright	(503) 28	86-9621	06-FEB-92	06-AUG-92	
6886	NWR	JUBITZ TRUCK STOP	10210 NORTH VANCOUVER WAY	PORTLAND	97217	Fred Jubitz			23-MAR-92	29-SEP-92	
		MCKINNEY'S SERVICE STATIO		PORTLAND	97217	Thomas McKinney	(503) 28	86-0051	19-MAR-92		
			5000 N. BASIN	PORTLAND	97217	ROB FOREST	(503) 68	82-3865	16-JAN-92	25-SEP-92	
				PORTLAND	97217	Richard Wright	(503) 28	36-9621	06-FEB-92	06-AUG-92	
6063	NWR	POWELL DISTRIB. CO., INC.	8419 N. DENVER AVENUE	PORTLAND	97217	Jason Powell	(503) 20	39-5558	28-FE8-92	16-SEP-92	
6040	NWR	POWELL DISTRIB. CO., JUNC	1075 NUKIH UNIUN AVENUE	PORTLAND	97217	Jason Powell	(503) 20	00000	20-168-92	10-255-35	
20032	NWK	RAK AUTOMOTIVE	710 V COLUMNIA DI VO		97217	Joseph Kak	(202) 20	00-2027	04-160-94	01-001-02	
3421	NWK	RYDER TRUCK RENTAL, INC.	2107 UTLIE BLVD.	PORTLAND	07217	Capal Luckonath	(503) 47	30-3053	26-MAD-02	01-061-92	
785/	MUD	SKOLFIELD FUEL CO. STAR OIL CO.	2103 WILLIS BLVD. 8445 N KEDRY	PORTLAND	07217	Michael & Fitz	(503) 28	R3-1256	21-1AN-92	01-007-92	+
10753	NUD	WINMAR OF JANTZEN BEACH	700 N HAYDEN ISLAND DR	PORTLAND	07217	Eddie Hendrikson	(503) 22	23-4500	01-APR-92	01 001 72	
8935	MUD	BP STATION MART	KOLO N E KILLINGSWORTH	PORTLAND	07218	D James Bao	(503) 28	81-3179	18-MAR-92	13-MAY-92	
2506	10 HIN	COLLINS OIL CO DBA SEAPOR	ARIA N E AZNO AVE	PORTLAND	07218	Pandal Thomas	(206) 68	82-1264	10-MAR-92	01-0CT-92	
				PORTLAND	97218	ROB FORFST	(503) 60	32-3865	15-JAN-92	30-SEP-92	
		POWELL DISTRIBUTING CO.,		PORTLAND	07218	Jason Powell	(503) 28	39-5558	28-FFR-92	16-SEP-92	
		BARBER TEXACO	8604 S.W. BARBUR	PORTLAND	97210	Rwight Esthy	(503) 68	31-0308	13-MAR-92	18-SEP-92	
		CAPITAL & BARBUR CARDLOCK		PORTLAND	97210	ROB FOREST	(503) 68	32-3865	16-JAN-92	25-SEP-92	
		HANDY ANDY'S AUTO REPAIR		PORTLAND	97219	Susan E. Brown	(503) 24	46-8497	09-MAR-92	01-OCT-92	
			4480 S.W. GARDEN HOME ROA	PORTLAND	97219	Richard Brinklev	(503) 64	44-1786	30-MAR-92		
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AC ID	REG		ADDRESS	CITY	ZIP	CONTACT Lee Powell Jr. Richard Wright Jeffrey S. Jennings Dale Andert Dale Andert Lindy Cerar Michael A. Fitz Sandra Gaylord Odette A. Robertson Richard Wright ROB FOREST Brent Leathers Michael McCarter Stephen J. Reid ROB FOREST Dale Andert Richard Wright Richard Wright Terry Pyle John Phimister John Phimister Gordon Olson Donald W. Rognon Donald W. Rognon Donald W. Rognon Donald W. Rognon Donald W. Rognon Donald W. Rognon Donald B. Stutzman Jim Arendell Barry Naone Allen L. Olson Richard Wright Richard Wright Dale Andert Dale Andert	PHONE		LOI	CA	APP
10066	NWR	KAADY CARWASH SHELL STATION #36 STAFF JENNINGS INC TEXACO STATION TEXACO STATION	7392 S.W. BARBUR BLVD	PORTLAND	97219	lee Powell Jr.	(503)	289-5558	28-FFB-92		
7537	NUR	SHELL STATION #36		PORTLAND	07210	Richard Wright	(503)	286-9621	06-FEB-92	06-416-92	
3105	NUR	STAFE JENNINGS INC	8240 SU MACADAM AVENUE	PORTLAND	07210	leffrey S lennings	(503)	244-7505	25-MAR-02	31-AUG-02	
850	NUD	TEVACO STATION	4419 S.W. MULTNOMAH BLVD.		07210	Date Apdent	(503)	225-1257	00-140-02	JI XOU YE	
051	ALL NO.		4417 S.W. PULINUMAN BLVD.	PORTLAND	77417		(202)	223-4231	00 NAR 02		
0710	NWK	IEXALU STATION	TOTE NE COUR AVE	PORTLAND	97219	Date Andert	(202)	223-4237	UY-MAK-92		
		ALAMO RENT A CAR # 166		PORTLAND	97220	Lindy Cerar	(305)	522-0000	21-FEB-92		
			12110 NE SANDY BLVD	PORTLAND	97220	Michael A. Fitz	(503)	283-1256	21-JAN-92	01-001-92	
			9920 N.E. SANDY	PORTLAND	97220	Sandra Gaylord	(503)	224-8500	23-JAN-92	11-SEP-92	
1089	NWR	CHEVRON U.S.A., INC 95	10215 N.E. HALSEY	PORTLAND	97220	Odette A. Robertson	(503)	227-0683	26-MAR-92		
7600	NWR	FRESHNER, CECIL	1327 N.E. 82ND AVENUE	PORTLAND	97220	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
		HARRIS ENTERPRISES, INC.		PORTLAND	97220	ROB FOREST	(503)	682-3865	15-JAN-92	25-SEP-92	
		LEATHERS OIL CO.		PORTLAND	97220	Brent Leathers	(503)	661-1244	10-JAN-92	25-AUG-92	30-JAN-92
172	NWR	MCCARTER, MICHAEL J.; FOR	4505 N.E. 102ND	PORTLAND	97220	Michael McCarter	(503)	252-0234	23-JAN-92	24-SEP-92	
4410	NWR	PIONEER OIL	9270 N.E. GLISAN	PORTLAND	97220	Stephen J. Reid	(503)	254-8585	19-MAR-92	03-JUN-92	
6621	NWR	SANDY BLVD. CARDLOCK	11426 N.E. SANDY BLVD.	PORTLAND	97220	ROB FOREST	(503)	682-3865	16-JAN-92	25-SEP-92	
847	NUR	MCCARTER, MICHAEL J.; FOR PIONEER OIL SANDY BLVD. CARDLOCK TEXACO STATION COCHRAN, GERALD F. GARIBALDI, ALBERT PLAID PANTRY #162 ASTRO #239 DRA OI SON BROS. MILWAUKIE	4443 N.E. 82ND	PORTLAND	97220	Dale Andert	(503)	225-4257	09-MAR-92		
1359	NWR	TEXACO STATION	10131 N.E. SANDY BLVD.	PORTLAND	97220	Dale Andert	(503)	225-4257	09-MAR-92		
7538	NWR	COCHRAN, GERALD F.	5215 S.W. BEAVERTON-HILLS	PORTLAND	97221	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
7536	NUR	GARIBALDI, ALBERT	3520 S.W. PATTON	PORTLAND	97221	Richard Wright	(503)	286-9621	06-FFB-92	06-AUG-92	
4763	NUR	PLAID PANTRY #162	1817 SW SKYLINE BLVD	PORTIAND	97221	Terry Pyle	(503)	646-4246	16-MAR-92	30-SEP-02	
6277	NUR	ASTRO #215	11010 S E MCLOUGHLIN	MILWAUKIE	07222	John Phimister	(503)	2/3-7800	00-141-02	21-550-02	
6237	MUD	ASTRO #230	12/70 S E 82ND	MILWAUKIE	07000	John Phimister	(503)	243 7077	00-141-02	21_SED_02	
3/51	NUD	DBA OLSON BROS. MILWAUKIE	10700 S E MCLOUCHITH RIV	MILIAUKIC	07222	Cordon Olcon	(503)	450-51/1	21_ IAN-02	18-400-02	
		FLYING J TRAVEL PLAZA	Teres sens measurern ser		07222	Depaid U. Rognon	(901)	734-6400	21-084-72	10-A08-92	
		EDANKO 457	10/05 S E /OND	MILWAUKIE	07222	Denald II Vertuin	(501)	205 2440	20-FED-72		
		FRANKO #53 HANNA 905		MILWAUKIE	71444	John T. Channels	(505)	273-2000	01-APK-92		
7322	NWK	HANNA 905	JUDJ SE MARKISUN	MILWAUKIE	91222	John E. Snepanek	(202)	202-9214	01-APK-92		
0047	NWR	HARRIS ENTERPRISES, INC.	18/// S.E. MCLOUGHLIN	MILWAUKIE	91222	ROB FOREST	(503)	082-3805	15-JAN-92	25-SEP-92	
6/8	NWK	JERRY'S MILWAUKIE BP JIM ARENDELL'S ARCO SERVI	614U S.E. KING RD.	MILWAUKIE	9(222	Gerald G. Stutzman			27-JAN-92	02-SEP-92	
635	NWR	JIM ARENDELL'S ARCO SERVI	4140 S.E. HARRISON	MILWAUKIE	97222	Jim Arendell	(503)	659-9821	05-MAR-92	16-JUL-92	
4773	NWR	MINIT-LUBE #1117 OLSON BROTHERS TEXACO	14790 S.E. MCLOUGHLIN BLV	MILWAUKIE	97222	Barry Naone	(503)	731-6487	30-MAR-92	01-OCT-92	
4375	NWR	OLSON BROTHERS TEXACO	14115 MCLOUGHLIN BLVD.	MILWAUKIE	97222	Allen L. Olson	(503)	659-5141	21-JAN-92	18-AUG-92	
7593	NWR	PANOCO INC #51	13780 S.E WEBSTER ROAD	MILWAUKIE	97222	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
5053	NWR	PANOCO, INC	13780 S.E WEBSTER ROAD 14811 S.E. MCLOUGHLIN BLV	MILWAUKIE	97222	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
1374	NWR	TEXACO SERVICE STATION	515 N.E. 82ND	PORTLAND	97222	Dale Andert	(503)	225-4257	09-MAR-92		
1339	NWR	TEXACO STATION	10550 S.E. 42ND ST.	MILWAUKIE	97222	Dale Andert	(503)	225-4257	09-MAR-92		
6521	NWR	TEXACO STATION TEXACO STATION 72ND AVE CARDLOCK ASTRO #225 FULLERS MOBIL	18122 S.E. MCLOUGHLIN BLV	MILWAUKIE	97222	Dale Andert	(503)	225-4257	09-MAR-92		
3605	NWR	72ND AVE CARDLOCK	16650 S.W. 72ND AVE.	TUALATIN	97223	ROB FOREST	(503)	682-3865	16-JAN-92	30-SEP-92	
6176	NWR	ASTRO #225	12885 S.W. PACIFIC HWY.	TIGARD	97223	John Phimister	(503)	243-7899	09-JAN-92	21-SEP-92	
810	NUR	FULLERS MOBIL	11440 S.W. PACIFIC HWY.	PORTLAND	97223	Jerry Fuller	(2007		07-JAN-92	22-SEP-92	
105	NUP	KNEZ BUILDING MATERIAL CO	8185 S M HUNZIKER	TIGARD	07223	Michael & Fitz	(503)	283-1256	21-JAN-92	01-007-92	
2770	ULID	NINE-T-NINE TOWING, INC.	11000 S U DACIFIC HUY	TIGARD	07223	Pay Hoffarber	(503)	630-6528	27-140-02	20-550-02	
			44/4E C N DACIELC INV		71263		(505)	2027-0220	21-MAR 72	29 JLF-92	
1044	NWK	PANOCO, INC #60	11415 S.W. PACIFIC HWY.	PORTLAND	97223		(303)	200-9021	00-FEB-92	00-AUG-92	
3429	NWK	RYDER TRUCK RENTAL, INC.	18045 S.W. LUWER BUONES F	TIGARD	91223	Lisa Lomparo	(305)	272-2420	01-APK-92	01-061-92	
10693	NWR	TEXACO REF. & MKTING, INC	11290 S.W. BULL MOUNTAIN	IIGARD	97225	Dale Andert	(503)	225-4257	09-MAR-92		
		TEXACO SERVICE STATION	11834 S.W. PACIFIC HWY.	TIGARD	9/223	Dale Andert	(503)	225-4257	09-MAR-92		
		TEXACO STATION	17997 S.W. LOWER BOONES F	TIGARD	97223	Dale Andert	(503)	225-4257	09-MAR-92		
		TEXACO STATION	8725 S.W. HALL BLVD.	T I GARD	97223	Dale Andert	(503)	225-4257	09-MAR-92		
2371	NWR	TIGARD ARCO	17997 S.W. LOWER BOONES F 8725 S.W. HALL BLVD. 12475 S.W. MAIN STREET 13970 S.W. PACIFIC HWY	TIGARD	97223	Dennis Thompson	(503)	620-2184	07-JAN-92	24-AUG-92	
1019	NWR	TIGARD BP	13970 S.W. PACIFIC HWY	TIGARD	97223	Ron Cain	(503)	357-9711	09-JAN-92	30-SEP-92	06-MAR-97
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FAC ID RE	G FAC NAME	ADDRESS	СІТҮ	ZIP	CONTACT Gary Dent Gary Dent Richard Wright John & Marietta Smets Dale Andert Ron Cain ROB FOREST Dwight Estby William E. Hayes, S. J. Richard Wright Richard P. Buono Richard Wright Dale Andert David Muta Richard P. Buono Chris Jansen John Phimister Dale Andert Milton Brown Ermett Wesley Nancy Scheewe Ron Cain Richard Wright Howard Carver Dale Andert Dale Andert Dale Andert Robert B. Sutherland Phil & Eugenie Keene Donald H. Hartvig Janet J. Hirsch Joseph B Kent Cliff Arntson Marty & Patty Peets Richard Wright Richard Wright Richard Wright Richard Wright Richard Wright Nince O. Powell Jim Pliska Dale Andert Dale Andert	PHONE		LOI	CA	АРР
1124 NW	R UNOCAL #6386	8740 S.W. HALL BLVD.	PORTLAND	97223	Gary Dent	(503)	524-9201	01-APR-92		
	R UNOCAL 4889	14030 SW PACIFIC HWY	TIGARD	97223	Gary Dent	(503)	524-9201	01-APR-92		
9227 NW	R PANACO INC. #66 TIGARD T	16200 SW PACIFIC HWY SUIT	TIGARD	97224	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
	R SMETCO	6830 S.W. BONITA ROAD	PORTLAND/TIG	97224	John & Marietta Smets	(503)	620-1604	30-MAR-92		
1325 NW	R TEXACO STATION	11465 S.W. PACIFIC AVE.	TIGARD	97224	Dale Andert	(503)	225-4257	09-MAR-92		
	R B. P. OIL SERVICE STATION	7200 SW BEAVERTON-HILLSDA	PORTLAND	97225	Ron Cain	(503)	357-9711	09-JAN-92	30-SEP-92	24-FEB-92
7165 NW	R HARRIS ENTERPRISES, INC.	10415 S.W. PARKWAY	PORTLAND	97225	ROB FOREST	(503)	682-3865	15-JAN-92	25-SEP-92	
10983 NW	R HILLSDALE TEXACO R JESUIT HIGH SCHOOL R PANOCO INC #57 R RALEIGH HILLS FLYING 'A'	6361 SW CAPITAL HWY	PORTLAND	97225	Dwight Estby	(503)	681-0308	13-MAR-92	18-sep-92	
9352 NW	R JESUIT HIGH SCHOOL	9100 SW BEAVERTON HILLSDA	BEAVERTON	97225	William E. Hayes, S. J.	(503)	292-7894	30-MAR-92		
7541 NW	R PANOCO INC #57	10275 S.W PARKWAY	PORTLAND	97225	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
		7550 BEAVERTON HILLSDALE	PORTLAND	97225	Richard P. Buono	(503)	624-6300	30-MAR-92		
	R SHELL STATION #64	9085 S.W. BEAVERTON-HILLS	PORTLAND	97225	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
	R TEXACO SERVICE STATION	4200E W H CODUCT DOTE	PORTLAND	97225	Dale Andert	(503)	225-4257	U9-MAR-92		
		12805 N.W. CORNELL ROAD	PORILAND	97225	Date Andert	(503)	225-4257	U9-MAR-92		
	R THE LITTLE STORE	8998 S.W. LEAHY RD.	PORTLAND	97225	David Muta	(503)	292-0205	30-MAR-92		
1051 NW	R UNOCAL 5133	5065 S.W. SCHOLLS FERRY	PORTLAND	97225	Richard P. Buono	(503)	624-6300	30-MAR-92	<u></u>	20 1111 02
2724 NW	R PRIESTLEY OIL & CHEMICAL	2429 N. BURTHWICK AVE.	PORILAND	97227	Chris Jansen	(503)	288-5294	20-MAR-92	28-MAY-92	20-MAY-92
		1111 N.W. 21ST	PORTLAND	97228	John Phimister	(503)	243-7899	09-JAN-92	21-SEP-92	
	R TEXACO STATION	7455 S.W. GARDEN HOME RD.	PORILAND	97220	Date Andert	(203)	223-4237	09-MAR-92		
3197 NW 1179 MI	R AL TAYLOR'S TIRE FACTORY, R CHEVRON U.S.A., INC 94	17475 V II CODVELL DD	PORTLAND	97229	MILTON Brown	(505)	043-3/30	UT-APR-92		
7902 NW	R CREVRON U.S.A., INC. * 94 B CODNELL QUELL	10690 N.W. CORNELL KD.		91229	Enmett Westey	(202)	643-2174	10-JAN-92	21-650-02	
1000 NW		120 N.W. MURRAY RD.		97229	Ron Cain	(503)	357-0711	10-MAK-92	30-SEP-92	12-101-02
7540 NU	P DANNEN INE #54	905 N.W. MURRAY ROAD		07220	Richard Uright	(503)	286-0621	07-JAN-92	06=AU0=02	12-JUN-72
10160 NU	R SKYLINE'S GERMANTOWN STOR	8250 N LI SKYLINE		07220	Howard Carver	(503)	645-8321	13-JAN-02	14-AUG-92	00-SED-02
1757 111	D TEVICO CEBUICE CTATION	18031 S F STARK		07220	Dale Indert	(503)	225-6257	10-MA9-02	14 700 72	07 Jul 74
1360 NW	R TEXACO STATION	2400 N.W. 185TH	PORTI AND	07220	Dale Andert	(503)	225-4257	09-MAR-92		
4354 NU	R TEXACO SERVICE STATION R TEXACO STATION R SIMCO TEXACO R SPACE AGE FUEL R FRANKO #58 R LARSON'S MOORAGE D LINUTON PR SERVICE STATIO	16531 N.F. SANDY BLVD	PORTI AND	97230	Robert B Sutherland	(503)	257-7741	19-MAR-92	01-007-92	
2175 NW	R SPACE AGE FUEL	16211 N.F. GLISAN ST.	PORTLAND	97230	Phil & Fugenie Keene	(503)	243-2720	01-APR-92	01-007-92	
6000 NW	R FRANKO #58	11130 N.W. ST. HELENS	PORTLAND	97231	Donald H. Hartvig	(503)	295-2668	01-APR-92		
2329 NW	R LARSON'S MOORAGE	14426 NW LARSON RD.	PORTLAND	97231	Janet J. Hirsch	(503)	286-1233	23-MAR-92	29-SEP-92	
		11330 N.W. ST. HELENS RD.	PORTLAND	97231	Joseph B Kent	(503)	286-4303	15-JAN-92	30-SEP-92	
1431 NW	R ALBINA FUEL CO.	3246 N.E. BROADWAY	PORTLAND	97232	Cliff Arntson	(503)	281-1161	19-MAR-92		
9349 NW	R GASVILLE	3940 NE SANDY BLVD.	PORTLAND	97232	Marty & Patty Peets	(503)	292-8360	13-JAN-92	28-SEP-92	
7580 NW	R PANOCO INC	1525 N.E. UNION AVE.	PORTLAND	97232	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
7573 NW	R PANOCO INC #43	1231 N.E. BROADWAY	PORTLAND	97232	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
2336 NW	R ALBINA FUEL CO. R GASVILLE R PANOCO INC R PANOCO INC #43 R POWELL, VINCE O. R SPACE AGE FUELS	226 NE GRAND	PORTLAND	97232	Vince D. Powell	(503)	233-4889	25-MAR-92		
375 NW	R SPACE AGE FUELS	7908 N.E. UNION AVE.	PORTLAND	97232	Jim Pliska	(503)	665-5693	01-APR-92	10-SEP-92	
		15 N.E. BROADWAY	PORTLAND	97232	Date Andert	(503)	225-4257	09-MAR-92		
	R TEXACO STATION	7433 N. INTERSTATE	PORTLAND	97232	Dale Andert	(503)	225-4257	09-MAR-92		
	R TEXACO STATION	519 N.E. BROADWAY	PORTLAND	97232	Dale Andert	(503)	225-4257	09-MAR-92		
	R UNOCAL 5451	15 N.E. UNION	PORTLAND	97252	George Faddoul	(503)	239-4376	01-APR-92		00
	R LEATHERS OIL CO.	18145 S.E. DIVISION	PORTLAND	97233	Brent Leathers	(503)	661-1244	10-JAN-92	25-AUG-92	28-JAN-92
	R SHELL STATION #45	16222 S.E. STARK ST.	PORTLAND	97233	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
	R SPACE AGE FUEL	12990 S.E. STARK	PORTLAND	97233	Ronald Gustatson	(503)	252-2721	01-APR-92	18-SEP-92	
	R STARK STREET BP	16150 S.E. STARK	PUKILAND	91235	Barry J. Desbiens	(203)	000-9024	10-JAN-92	20-529-92	
	R TEXACO STATION	2450 S.E. 122ND	PUKILAND	97233	Dale Andert	(202)	223-4237	09-MAK-92		
		13018 S.E. STARK	PUKILAND	71233	DATE ANGERT	(202)	662-4621	16- INN-02	75-050-02	
	R THRIFTY AUTO	605 S.E. 122 AVE.	PORILAND	71233	RUB FURES! Propt Leathans	(503)	661-10/4	10- JAN-92	25-SEP-92 25-AUG-92	30-141-02
420U NW	R LEATHERS OIL CO.	16331 S.E. POWELL	FURILAND	71220	prent Leathers	(202)	001-1244	IU-JAN-92	2J-408-92	20-9WP-25

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Statewide Summary Report - Zip Code Order

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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT Nick Khoury Jim Pliska Dale Andert ROB FOREST Dale Andert John Phimister Dwight Estby Ron Cain Donald Jackson Donald Jackson Donald Jackson Donald H. Hartvig Barry Naone Jim Lyons Marla J. Gardner Brent Leathers Jim Pliska BARBARA RILEY Dale Andert Dale Andert Dale Andert Dale Andert Dale Andert John E. Shepanek Susan Stein James Scully Phil Murray ROB FOREST Donald H. Hartvig Walt Ivie Walt Ivie Walt Ivie S G Hinkle, Jr Robert Newburn Dale Andert ROB FOREST Joseph P Reding Phil Murray Phil Murray Phil Murray Thomas McEwen Phil Murray Thomas McEwen Phil Murray Ken Lovegrove ROB FOREST Dale Andert Earl Cook Nadim Yaqoub ROB FOREST Terry L. Hancock Fred Ovchinnikoff ROB FOREST BARBARA RILEY Michael Ovchinnikoff	PHONE	LOI	CA	APP
2481	NWR	NICK'S TEXACO SPACE AGE FUEL TEXACO SERVICE STATION	12220 SE FOSTER ROAD	PORTLAND	97236	Nick Khoury	(503) 760-6030	06-MAR-92	01-0CT-92	
8379	NWR	SPACE AGE FUEL	5840 S.E. 17TH	PORTLAND	97236	Jîm Pliska	(503) 665-5693	17-JAN-92	10-SEP-92	
1379	NWR	TEXACO SERVICE STATION	3515 S.E. 122ND	PORTLAND	97236	Dale Andert	(503) 225-4257	09-MAR-92		
6556	NWR	82ND & LIEBE CARDLOCK	4860 S.E. 82ND	PORTLAND	97266	ROB FOREST	(503) 682-3865	15-JAN-92	25-SEP-92	
4877	NWR	92ND & POWELL E & M	9215 S.E POWELL	PORTLAND	97266	Dale Andert	(503) 225-4257	09-MAR-92		
6275	NWR	ASTRO #217	9215 S.E. POWELL 11214 S.E. DIVISION 9808 S.E. DIVISION 9138 S.E. FOSTER AVENUE 12160 SE FOSTER RD 10402 S.E. HOLGATE	PORTLAND	97266	John Phimister	(503) 243-7899	09-JAN-92	21-SEP-92	
3903	NWR	ESTBY, DWIGHT	9808 S.E. DIVISION	PORTLAND	97266	Dwight Estby	(503) 681-0308	13-MAR-92	18-SEP-92	
1919	NWR	FOSTER MOBIL	9138 S.E. FOSTER AVENUE	PORTLAND	97266	Ron Cain	(503) 357-9711	09-JAN-92	30-SEP-92	21 - FEB - 92
9681	NWR	FOSTER RUAD ARCO	12160 SE FOSTER RD	PORTLAND	97266	Donald Jackson	(503) 761-4221	14-JAN-92	03-SEP-92	
0005	NWR	FRANKU #27	10402 S.E. HULGATE	PORTLAND	97266	Donald H. Hartvig	(503) 295-2668	01-APR-92	A4 AA7 A3	
0751	NWK	FRED MEYER - SOUTHEAST HANNA 927	5255 SE 82ND	PORTLAND	97200	Barry Naone	(503) (51-648/	30-MAK-92	01-001-92	
3054	N WK	HANNA 721 Hause liadnede eijet og	8480 S.E. DIVISION STREET	PORTLAND	07244	JUN LYONS Maple I Candhae	(303) 039-0301	24-128-92	30-SEP-92	
/287	AIWK.	LEATHERS OIL CO	11/21 S E DOUGLI	PORTLAND	07266	Maria J. Gardner	(200) 377-0024	10- 16N-02	20-25-400 02	
4207	NUP	SPACE AGE FUEL INC	RAIN S E FOSTER ROAD		07266	lim Plicka	(503) 665-5603	10-JAN-92	20-AUG-92 10-SED-02	
8112	NUR	SUNSET FUEL COMPANY MARK.	11421 S.E. POWELL 8410 S.E. FOSTER ROAD 8752 S.E. DIVISION		97266		(503) 234-0611	27-FER-02	28-SEP-02	
9855	NUR	TEXACO REFINING & MARKETI	5524 S.E. 82ND (AT FOSTER	PORTLAND	97266	Dale Andert	(503) 225-6257	10-MAD-02	20 327 92	
5882	NWR	TEXACO STATION	10725 S.F. 82ND	PORTIAND	97266	Dale Andert	(503) 225-4257	09-MAR-92		
831	NWR	TEXACO STATION	12155 S.E. FOSTER RD.	PORTLAND	97266	Dale Andert	(503) 225-4257	09-MAR-92		
1333	NWR	TEXACO STATION	9218 S.E. DIVISION	PORTLAND	97266	Dale Andert	(503) 225-4257	09-MAR-92		
9347	NWR	HANNA C-3	14373 SE MCLOUGHLIN BLVD.	MILWAUKIE	97267	John E. Shepanek	(503) 265-9274	01-APR-92		
7976	NWR	OAKGROVE CHEVRON	13939 MCLOUGHLIN BLVD.	MILWAUKIE	97267	Susan Stein	(503) 656-0375	09-MAR-92	21-SEP-92	
9658	NWR	BENSON BROTHERS, INC	8220 N IVANHOE	PORTLAND	97283	James Scully	(619) 443-0549	20-MAR-92	25-SEP-92	
6108	₩VR	C.A.R.S.	2795 MARKET STREET N.E.	SALEM	97301	Phil Murray	(503) 588-0455	15-JAN-92	14-AUG-92	
1789	WVR	CENTER ST. CARDLOCK	5524 S.E. 82ND (AT FOSTER 10725 S.E. 82ND 12155 S.E. FOSTER RD. 9218 S.E. DIVISION 14373 SE MCLOUGHLIN BLVD. 13939 MCLOUGHLIN BLVD. 8220 N IVANHOE 2795 MARKET STREET N.E. 680 CENTER ST. N.E. 1720 STATE ST. S.E. 810 LANCASTER DR. S.E. 1500 HAWTHORNE AVE. N.E. 195 COMMERCIAL ST. S.E.	SALEM	97301	ROB FOREST	(503) 682-3865	16-JAN-92	30-SEP-92	
5774	WVR	FRANKO #12	1720 STATE ST. S.E.	SALEM	97301	Donald H. Hartvig	(503) 295-2668	01-APR-92		
220	WVR	I-Z PROPERTIES	810 LANCASTER DR. S.E.	SALEM	97301	Walt Ivie	(503) 390-2275	06-MAR-92	24-SEP-92	
10437	WVR	IVIE SHELL SERVICE	1500 HAWTHORNE AVE. N.E.	SALEM	97301	Walt Ivie	(503) 390-2275	06-MAR-92	24-SEP-92	
				SALEM	97301	S G Hinkle, Jr	(503) 581-4466	31-JAN-92	01-0CT-92	
5270	WVK	MARKET STREET EXXUN 7-11	3398 MARKET STREET N.E.	SALEM	97301	Robert Newburn	(503) 683-4433	10-FEB-92	44 055 00	
			102 LANCASTER DRIVE, N.E.	SALEM	97301	Robert Newburn	(503) 683-4433	10-128-92	14-SEP-92	
			1491 LANCASTER DR., S.E.	SALEM	07301	DALE ANGERT	(503) 225-4257	09-MAR-92		
				SALEM	97302	RUB FURESI	(JUJ) 002-3003	16-JAN-92	22-256-92	
6443	UVR	CHUCK'S TEXACO	2483 MISSION S.F	SALCH	97302	Phil Murray	JU3/303*407J	15-JAN-92	03-406-92	
8491	WVR	CURT'S TEXACO	3514 COMMERCIAL S.E. 2483 MISSION, S.E. 4292 LIBERTY ROAD S.E. 1212 MISSION ST. S.E. 3220 LIBERTY RD. SE 1245 HOYT SE 4395 COMMERCIAL STREET S. 3794 COMMERCIAL ST. SE 4220 BROOKLAKE ROAD, N.E. 4495 RIVER ROAD NORTH 1190 SALEM INDUSTRIAL WAY 2001 16TH STREET NE	SALEM	97302	Phil Murray		15-JAN-92	03-AUG-92	
639	WVR	FIREHOUSE 5 CAR WASH	1212 MISSION ST. S.E.	SALEM	97302	Thomas McEwen	(503) 585-4728	06-FEB-92	01-001-92	
6439	WVR	LIBERTY RD. TEXACO	3220 LIBERTY RD. SE	SALEM	97302	Phil Murray	•••••	15-JAN-92	03-AUG-92	
10285	WVR	LOVEGROVE AUTO BODY	1245 HOYT SE	SALEM	97302	Ken Lovegrove		27-JAN-92		
3607	WVR	MERRITT TRUAX, INC.	4395 COMMERCIAL STREET S.	SALEM	97302	ROB FOREST	(503) 682-3865	15-JAN-92	30-SEP-92	
4895	WVR	TEXACO STATION	3794 COMMERCIAL ST. SE	SALEM	97302	Dale Andert	(503) 225-4257	09-MAR-92		
4210	WVR	BINGO FUEL STOP	4220 BROOKLAKE ROAD, N.E.	SALEM	97303	Earl Cook	(503) 271-5219	21-JAN-92		
1612	WVR	BOB'S KEIZER SHELL	4495 RIVER ROAD NORTH	SALEM	97303	Nadim Yaqoub	(503) 393-3530	18-MAR-92	01-001-92	
8963	WVR	DEL WEB CARD LOCK	1190 SALEM INDUSTRIAL WAY	SALEM	97303	ROB FOREST	(503) 682-3865	16-JAN-92	25-SEP-92	
10070		Philode (northe milling a	Evel form of MEEL HE	SALEM	97503	Terry L. Hancock	(503) 570-9963	11-MAY-92	44 055 02	
		FRED FAIRGROUND B.P.	2385 FAIRGROUND RD.	SALEM	97303	Fred Uvchinnikoff	(503) 363-0832	10-FE8-92	14-SEP-92	
3613	WVR	FRONT ST. CARDLOCK	205 COLUMBIA ST. N.E.	SALEM	91303	KUB FUKESI	(DUD) 082-3865	ID-JAN-YZ	23-322-92	
7160	WVK	HARRIS ENTERPRISES, INC.	4180 PORTLAND ROAD, N.E.	SALEM	97303	KUB FURESI DADDADA DILEY	(503) 082-3865	10-JAN-92	20-SEP-92	
1434 17		NORE FUEL OIL LU.	1710 COMMERCIAL ST. NE 280 PINE ST. N.E.	SALEM SALEM	21202	DARDAKA KILEI Michael Ovchinnikoff	(503) 234"0011 (50%) %25-%287	20-124-02	20-361-92 18-410-02	
017	41 ¥ K	MAR RELENT ING.	LOG FINE OF, N.C.	JALEN	1100	Prenaet overspiritkott	(202) 202-2007	DU UAN 72	10 700-76	

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FAC ID	REG I	FAC NAME	ADDRESS	СІТҮ	ZIP	CONTACT	PHONE	LOI	CA	APP
5902	WVR H	KEIZER EXXON	4795 RIVER ROAD, N.E.	KEIZER	97303	Dennis L. Stoll	(503) 362-5558	31-MAR-92	23-SEP-92	
			6160 RIVER RD. N.	SALEM		Duane Van Cleave	(503) 390-2850	17-JAN-92		
9197	WVR N	M&M MART #3	3401 RIVER ROAD	KEIZER	97303	Richard Mikesell	(503) 928-3385		07-AUG-92	
6438	WVR N	MARKET STREET	3411 MARKET ST., N.E.	SALEM	97303	ROB FOREST	(503) 682-3865	15-JAN-92	25-SEP-92	
3623	WVR N		5195 RIVER ROAD N	KEIZER	97303	Dean Henderson	(503) 588-0455	16-MAR-92	25-SEP-92	
3619	WVR N	MERRITT TRUAX #1, INC.	3510 RIVER ROAD N.E.	SALEM	97303	Dean Henderson	(503) 588-0455	15-JAN-92	25-SEP-92	
3627	WVR N	MERRITT TRUAX, INC./METRO	3025 INDUSTRIAL WAY N.E.	SALEM	97303	Marc Nelson	(503) 363-7676	15-JAN-92	30-SEP-92	
		SERVICE OIL COMPANY	1295 JOHNSON STREET, N.E.		97303	Dennis L. Stoll	(503) 362-5558		23-SEP-92	
		TEXACO STATION	3502 PORTLAND RD., N.E.	SALEM		Dale Andert	(503) 225-4257	09-MAR-92		
		AG WEST SUPPLY	5082 SALEM DALLAS HIGHWAY			Larry Crook			19-AUG-92	01-OCT-92
		ERNIE'S PAYLESS	5322 DALLAS HIGHWAY NW	SALEM		Gina Boe	(503) 588-1766			
		HOPEWELL GENERAL STORE	22460 HOPEWELL RD.	SALEM		Richard Brown	• •	10-JAN-92		
		LINCOLN STORE	5925 WALLACE RD. N.W.	SALEM		Rachel Byers		17-JAN-92		
		RITCHIE CHEVRON	1115 WALLACE ROAD, N.W.	SALEM		Melinda Nielsen		27-FEB-92		
			545 WALLACE RD. NW	SALEM		Dennis L. Stoll Phil Murray	(503) 362-5558	23-MAR-92		
			585 WALLACE RD., N.W.	SALEM				16-JAN-92		
			4005 SILVERTON ROAD NE	SALEM		Dean Henderson	(503) 588-0455			
		SQUIRREL HILL TEXACO		SALEM		ROB FOREST	(503) 682-3865	16-JAN-92	25-SEP-92	
		99 & FULTON ST. TEXACO		ALBANY		Mark Younger	(503) 926-4289	23-MAR-92		06-OCT-92
		ALBANY BP		ALBANY	97321	Stephen E. Backer ROB FOREST	(503) 926-7666	04-MAR-92		
		ALBANY CARDLOCK	236 1ST AVE. E.	ALBANY	97321	ROB FOREST	(503) 682-3865	16-JAN-92	25-SEP-92	
		BEACON T&R TRUCK STOP #51		ALBANY	97321	Randall K. Stephenson	(209) 583-3324		10 orb 00	
		COURTESY CORNER/ALBANY HE		ALBANY	97321	Ronald Smith	(503) 928-8264	06-FEB-92		
		CUMMINGS TRANSFER CO.	740 29TH S.W.	ALBANY	97321	Stephen E. Backer ROB FOREST Randall K. Stephenson Ronald Smith Richard Mikesell Barry Naone ROB FOREST Don Wilson Mark Younger Richard Mikesell Dennis L. Stoll John Nix Jr Brent Leathers Brent Leathers Richard Mikesell Mark Younger Brad Wilson Chris Wheeler Robert Ridenour	(503) 928-3385	23-JAN-92		
		FRED MEYER - BEACON OIL	2500 SANTIAM HWY.	ALBANY	97321	Barry Naone	(503) 731-6487			
		HARRIS ENTERPRISES, INC.		ALBANY	07721	RUB FURESI	(503) 682-3865			21-050-02
		HIGHWAY 20 CARDLOCK	4195 SANTIAM HWY	ALBANY	07701	Non Wilson	(503) 926-1817		20-2EP-92	06-0CT-92
		I5 & HWY 20 TEXACO JACK'S TRUCK STOP	3135 SANTIAM HWY 4196 SANTIAM SE	ALBANY ALBANY	97321	Mark Tounger Richard Mikegoll	(503) 926-4289 (503) 928-3385	23-MAR-92 23-JAN-92	07-AUG-92	00-001-92
		JAME'S GARAGE	1810 GRAND PRAIRIE RD.	ALBANY	07321		(503) 362-5558		23-SEP-92	
		JOHN NIX, JR. TRUCKING	335 WEST QUEEN AVENUE, S.	ALBANY	97321	John Nix Jr	(503) 926-7796			
		LEATHERS OIL CO.	33385 HIGHWAY 34, S.E.	ALBANY	07321	Brent Leathers	(503) 661-1244			28-JAN-92
		LEATHERS OIL COMPANY	3105 S. SANTIAM HIGHWAY	ALBANY	97321	Brent Leathers	(503) 661-1244			30-JAN-92
		M & M MART 1	501 PACIFIC BLVD., SOUTH	ALBANY	97321	Richard Mikesell	(503) 928-3385			
		MARK'S TEXACO	33380 HWY 34 SE	ALBANY	97321	Mark Younger	(503) 926-4289			06-0CT-92
			235 SOUTH OLD SALEM HWY /	ALBANY	97321	Brad Wilson	(503) 926-1817		01-OCT-92	
		QUICK STOP FOOD MART	33651 HOEFER RD. N.E.	ALBANY	97321	Chris Wheeler	(206) 743-5634	27-JAN-92	29-SEP-92	
9207	WVR F	RIDENOUR SHELL #6	3170 S.E. HWY 34	ALBANY	97321	Robert Ridenour	(503) 929-3562	05-MAR-92	17-SEP-92	
4201	WVR S	STOELTING, CHESTER R	1645 QUEEN AVENUE, S.W.	ALBANY	97321	Chester R. Stoelting	(503) 965-3783		26-JUN-92	
5127	WVR 1	TOUPS, LYNN R	520 ELSWORTH S.W.	ALBANY	97321	Lynn Roley Toups	(813) 584-2065			
3555	WVR V	WEST ALBANY TEXACO	522 PACIFIC BLVD., S.W.	ALBANY	97321	Mark Younger	(503) 926-4289	23-MAR-92		06-OCT-92
813	WVR V	WHETSTONS BP MART	3167 S.E. HIGHWAY 34	ALBANY	97321	Richard Mikesell	(503) 928-3385			
1469	WVR /	ALSEA GARAGE	215 E. MAIN ST.	ALSEA	97324	Donald J. Peterson	(503) 487-7454			05-0CT-92
5100	WVR /	AUMSVILLE EXXON	1075 MAIN STREET	AUMSVILLE	97325	Dennis L. Stoll	(503) 362-5558	23-MAR-92	23-SEP-92	
621	WVR [DON PRIDDY'S AUTO REPAIR	522 MAIN ST.	AUMSVILLE	97325	Don Priddy		18-MAR-92		
9199	WVR 1	TOM'S COUNTRY BOY GAS	810 MAIN STREET	AUMSVILLE		Richard Mikesell	(503) 928-3385			
		BURNT WOODS STORE	30358 HWY. 20	BLODGETT		Randy Quetschke		12-MAR-92		
			21412 HWY 20	BLODGETT		Floyd & Joanne Vosberg	(503) 453-4225			
		BROWNSVILLE SHELL	105 BISHOP WAY			Donald J. Nealon Jr.	(503) 466-5239			
7143	WVR .	JERRY'S AUTO SERVICE	P.O. BOX 274/ 203 BISHOP	BROWNSVILLE	97327	Jerry A. Anthony	(503) 466-5565	23-MAR-92	03-SEP-92	

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Statewide Summary Report - Zip Code Order

7558 WVR ATKINSON, WALTER J. 2075 N.W. CIRCLE BLVD. CORVALLIS 97330 Walter Atkinson (503) 753-9011 30-MAR-92 23-1 975 WVR CHEVRON U.S.A., INC 96 300 S. 4TH ST. CORVALLIS 97330 Paul Franklin (503) 753-9011 30-MAR-92 23-1 2107 WVR CITY LIMITS COUNTRY STORE 5800 N.W. HYW. 99W CORVALLIS 97330 Dealt Franklin (503) 753-7194 06-JAR-92 18-7 8177 WVR CORVALLIS EXXX0 480 S. W. 4TH CORVALLIS 97330 Dennis L. Stoll (503) 752-7194 06-JAR-92 23-4 4906 WVR CORVALLIS FXXX0 440 S. W. 4TH CORVALLIS 97330 Danine Barrett (206) 624-5900 30-MAR-92 21-7 4906 WVR FAMILY CAR WASH 1334 N.W. 9TH ST. CORVALLIS 97330 Ben Purvis (503) 758-9274 23-JAN-92 26-J 6971 WVR K MAR MART # 2 2415 HW1, 20 N.E. CORVALLIS 97330 Rich ard Mikesell (503) 752-7011 23-MAR-92 07-J 76 WVR M K MARNE PUMP CCZ47 <td< th=""><th></th></td<>	
975 WVR CHEVRON U.S.A., INC 96 300 S. 4TH ST. CORVALLIS 97330 Paul Franklin (503) 754-6053 31-MAR-92 2107 WVR CITY LIMITS COUNTRY STORE 5800 N.W. HYW. 99W CORVALLIS 97330 Richard Washburn (503) 745-7194 06-JAN-92 18 8177 WVR CORVALLIS EXXON 480 S.W. 41H CORVALLIS 97330 Dennis L. Stoll (503) 362-558 23-MAR-92 23 4906 WVR CORVALLIS EXXON 480 S.W. 41H CORVALLIS 97330 Janine Barrett (206) 624-5900 30-MAR-92 01 3559 WVR CORVALLIS TEXACO 1450 N.W. 9TH ST. CORVALLIS 97330 Ban Purvis (503) 758-9274 23-JAN-92 26 8870 WVR FRED PRICE FUEL COMPANY 842 N.W. BUCHANON STREET CORVALLIS 97330 Richard Mikesell (503) 928-3385 23-JAN-92 27 6091 WVR M & M MART # 2 2415 MWY 20 N.E. CORVALLIS 97330 Richard Mikesell (503) 928-3385 23-JAN-92 07 76 WVR RICHARD E. LINDSEY'S EXXO 240 N.W. 4TH CORVALLIS 97330 Richard Mikesell (503) 928-6025 25-MAR-92 3544 WVR ROLMARD E. LINDSEY'S EXXO 240 N.W. 5TH ST. CO	-92
2107 WVR CITY LIMITS COUNTRY STORE 5800 N.W. HYW. 99W CORVALLIS 97330 Richard Washburn (503) 745-7194 06-JAN-92 18- 8177 WVR CORVALLIS EXXON 480 S.W. 4TH CORVALLIS 97330 Dennis L. Stoll (503) 362-5558 23-MAR-92 23- 4906 WVR CORVALLIS GULL #417 2635 N.W. 9TH ST. CORVALLIS 97330 Janine Barrett (206) 624-5900 30-MAR-92 01- 3559 WVR CORVALLIS TEXACO 1450 N.W. 9TH ST. CORVALLIS 97330 Ban Purvis (503) 758-9274 23-MAR-92 24- 8870 WVR FRED PRICE FUEL COMPANY 842 N.W. 9TH ST. CORVALLIS 97330 Ban Purvis (503) 752-1555 17-JAN-92 26- 8870 WVR FRED PRICE FUEL COMPANY 842 N.W. BUCHANON STREET CORVALLIS 97330 Richard Mikesell (503) 928-3385 23-JAN-92 07- 7- 76 WVR RICHARD E. LINDSEY'S EXXO 240 N.W. 4TH CORVALLIS 97330 Richard Mikesell (503) 929-6025 25-MAR-92 3544 WVR TOWNE PUMP CC#27 2108 N.W. 9TH CORVALLIS 97330 Richard Mikesell (503) 752-7011 23-MAR-92 5502 WVR CORVALLIS RENTAL 1245 S.E. 3RD ST. CORVALLIS 97330 Richard Mikesel (503) 753-2213 14-JAN-92 7156 WVR HARRIS ENTERPRISES, INC. 1680 S.W THIRD STREET CORVALLIS 97333 ROB FOREST (503) 623-3865 15-JAN-92 25-5 <t< td=""><td></td></t<>	
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3559 WVR CORVALLIS TEXACO 1450 N.W. 9TH ST. CORVALLIS 97330 Mark Younger (503) 926-4289 23-MAR-92 1595 WVR FAMILY CAR WASH 1334 N.W. 9TH ST. CORVALLIS 97330 Ben Purvis (503) 758-9274 23-JAN-92 26 8870 WVR FRED PRICE FUEL COMPANY 842 N.W. BUCHANON STREET CORVALLIS 97330 Fred Price (503) 752-755 17-JAN-92 6091 WVR M & MART # 2 2415 HWY. 20 N.E. CORVALLIS 97330 Richard Mikesell (503) 928-3385 23-JAN-92 07 76 WVR RICHARD E. LINDSEY'S EXX0 240 N.W. 4TH CORVALLIS 97330 Rich Lindsey (503) 752-7011 23-MA-92 3544 WVR TOWNE PUMP CC#27 2108 N.W. 9TH CORVALLIS 97330 Rich Lindsey (503) 752-4201 13-JAN-92 75 WVR WILSON MOTORS 1105 N.W. 5TH ST. CORVALLIS 97330 R. C. Wilson (503) 752-4201 13-JAN-92 7156 WVR HARRIS ENTERPRISES, INC. 1680 S.W THIRD STREET CORVALLIS 97333 ROB FOREST (503) 642-3865 15-JAN-92 7156 WVR HARRIS ENTERPRISES, INC. 1680 S.W THIRD STREET CORVALLIS 97333 ROB FOREST (503) 642-3865 15-JAN-92 7834 WVR OBERSON OIL, INC. 1260 S.W. 3RD ST. CO	-92
1595 WVR FAMILY CAR WASH 1334 N.W. 9TH ST. CORVALLIS 97330 Ben Purvis (503) 758-9274 23-JAN-92 26- 8870 WVR FRED PRICE FUEL COMPANY 842 N.W. BUCHANON STREET CORVALLIS 97330 Fred Price (503) 752-1555 17-JAN-92 6091 WVR M & M MART # 2 2415 HWY. 20 N.E. CORVALLIS 97330 Richard Mikesell (503) 928-3385 23-JAN-92 07- 76 WVR RICHARD E. LINDSEY'S EXXO 240 N.W. 4TH CORVALLIS 97330 Richard Mikesell (503) 928-6025 25-MAR-92 3544 WVR TOWNE PUMP CC#27 2108 N.W. 9TH CORVALLIS 97330 R. C. Wilson (503) 752-4201 13-JAN-92 75 WVR WILSON MOTORS 1105 N.W. 5TH ST. CORVALLIS 97330 R. C. Wilson (503) 752-4201 13-JAN-92 7156 WVR CORVALLIS RENTAL 1245 S.E. 3RD ST. CORVALLIS 97333 William R. Upton (503) 753-2213 14-JAN-92 7156 WVR HARRIS ENTERPRISES, INC. 1680 S.W THIRD STREET CORVALLIS 97333 ROB FOREST (503) 642-3865 15-JAN-92 25- 8547 WVR OBERSON OIL, INC. 1260 S.W. 3RD ST. CORVALLIS 97333 Mark Oberson (503) 642-3763 15-JAN-92 28- 7834 WVR ROISEN, MYRMA	06-0CT-92
8870 WVR FRED PRICE FUEL COMPANY 842 N.W. BUCHANON STREET CORVALLIS 97330 Fred Price (503) 752-1555 17-JAN-92 6091 WVR M & M MART # 2 2415 HWY. 20 N.E. CORVALLIS 97330 Richard Mikesell (503) 928-3385 23-JAN-92 07-J 76 WVR RICHARD E. LINDSEY'S EXXO 240 N.W. 4TH CORVALLIS 97330 Tom Madden (503) 929-6025 25-MAR-92 3544 WVR TOWNE PUMP CC#27 2108 N.W. 9TH CORVALLIS 97330 Rich Lindsey (503) 929-6025 25-MAR-92 75 WVR WILSON MOTORS 1105 N.W. 5TH ST. CORVALLIS 97330 R. C. Wilson (503) 752-4201 13-JAN-92 75502 WVR CORVALLIS RENTAL 1245 S.E. 3RD ST. CORVALLIS 97333 William R. Upton (503) 753-2213 14-JAN-92 7156 WVR HARRIS ENTERPRISES, INC. 1680 S.W. THIRD STREET CORVALLIS 97333 ROB FOREST (503) 682-3865 15-JAN-92 25-5 8547 WVR OBERSON OIL, INC. 1260 S.W. 3RD ST. CORVALLIS 97333 Mark Oberson (503) 753-4131 10-FEB-92 28-5 7834 WVR ROISEN, MYRNA 29TH & GRANT CORVALLIS 97333 Myrna C. Roisen (503) 364-3778 31-MAR-92 145 WVR CARD'S SHELL SERVICE -325 ORCHARD DR. DALLAS 97338 Betty M. Card (503) 623-3598 27-MAR-92 22-5	-92
6091 WVR M & M MART # 2 2415 HWY. 20 N.E. CDRVALLIS 97330 Richard Mikeselt (503) 928-3385 23-JAN-92 07-76 76 WVR RICHARD E. LINDSEY'S EXXO 240 N.W. 4TH CORVALLIS 97330 Rich Lindsey (503) 752-7011 23-MAR-92 3544 WVR TOWNE PUMP CC#27 2108 N.W. 9TH CORVALLIS 97330 Tom Madden (503) 929-6025 25-MAR-92 75 WVR WILSON MOTORS 1105 N.W. 5TH ST. CORVALLIS 97330 R. C. Wilson (503) 752-4201 13-JAN-92 5502 WVR CORVALLIS RENTAL 1245 S.E. 3RD ST. CORVALLIS 97333 William R. Upton (503) 753-2213 14-JAN-92 7156 WVR HARRIS ENTERPRISES, INC. 1680 S.W. THIRD STREET CORVALLIS 97333 ROB FOREST (503) 682-3865 15-JAN-92 25-5 8547 WVR OBERSON OIL, INC. 1260 S.W. 3RD ST. CORVALLIS 97333 Mark Oberson (503) 753-4131 10-FEB-92 28-5 7834 WVR ROISEN, MYRMA 29TH & GRANT CORVALLIS 97333 Myrna C. Roisen (503) 364-3778 31-MAR-92 145 WVR CARD'S SHELL SERVICE -325 ORCHARD DR. DALLAS 97338 Betty M. Card (503) 623-3598 27-MAR-92 22-5	
76 WWR RICHARD E. LINDSEP'S EXX0 240 N.W. 41H LURVALLIS 97330 Rtch Lindsey (503) 752-7011 25-MAR-92 3544 WWR TOWNE PUMP CC#27 2108 N.W. 9TH CORVALLIS 97330 Tom Madden (503) 929-6025 25-MAR-92 75 WVR WILSON MOTORS 1105 N.W. 5TH ST. CORVALLIS 97330 R. C. Wilson (503) 752-4201 13-JAN-92 5502 WVR CORVALLIS RENTAL 1245 S.E. 3RD ST. CORVALLIS 97333 William R. Upton (503) 753-2213 14-JAN-92 7156 WVR HARRIS ENTERPRISES, INC. 1680 S.W. THIRD STREET CORVALLIS 97333 ROB FOREST (503) 682-3865 15-JAN-92 25-4 8547 WVR BERSON OIL, INC. 1260 S.W. 3RD ST. CORVALLIS 97333 Mark Oberson (503) 753-4131 10-FEB-92 28-5 7834 WVR ROISEN, MYRNA 29TH & GRANT CORVALLIS 97333 Myrna C. Roisen (503) 364-3778 31-MAR-92 145 WVR CARD'S SHELL SERVICE -325 ORCHARD DR. DALLAS 97338 Betty M. Card (503) 623-3598 27-MAR-92 22-5	-92
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9592 WVR DALLAS RENTALS 244 E ELLENDALE DALLAS 97338 Marc H. Nelson (503) 363-7676 30-JAN-92 10-9	
6442 WVR DALLAS TEXACO 188 WASHINGTON ST. DALLAS 97338 Phil Murray 15-JAN-92 03-4	
6832 WVR GRUBBS & PETERS SERVICE C 430 N. MAIN ST. DALLAS 97338 Clarence Peters (503) 623-2508 19-MAR-92 30-9	
5141 WVR HIGASHI, ART JR. 15800 HWY. 22 DALLAS 97338 Art Higashi Jr. (503) 623-9612 30-MAR-92	
5268 WVR JIM'S AUTO SERVICE 119 S.E. WASHINGTON DALLAS 97338 Richard Mikesell (503) 928-3385 23-JAN-92 07-A	-92
9644 WVR WALLYS CHEVRON STATION 995 MAIN ST DALLAS 97338 Judith Courtemanche (503) 228-6224 19-MAR-92 01-0	
205 WVR WRIGHT, LEE W. 120 E. ELLENDALE DALLAS 97338 Lee W. Wright (503) 623-3227 21-JAN-92	
9725 WVR DEPOE BAY SPORT FISHING 214 SE HWY 101 DEPOE BAY 97341 L J Schlesser (503) 281-7581 01-APR-92 01-0	-92
10062 WVR LIBERTY DELI MARKET 466 N.E. HWY 101 DEPOE BAY 97341 Dan G. Hatcher (503) 765-2992 27-MAR-92 01-0	
9644 WW WALLIS CLEWON STATION 975 MATST DALLAS 97536 Juditin Contremanche (305) 226-6224 (9-MAR-92 01-0 205 WVR WRIGHT, LEE W. 120 E. ELLENDALE DALLAS 97338 Lee W. Wright (503) 623-3227 21-JAN-92 9725 WVR DEPOE BAY SPORT FISHING 214 SE HWY 101 DEPOE BAY 97341 L J Schlesser (503) 281-7581 01-APR-92 01-C 10062 WVR LIBERTY DELI MARKET 466 N.E. HWY 101 DEPOE BAY 97341 Dan G. Hatcher (503) 765-2992 27-MAR-92 01-C 8584 WVR WHISTLE STOP INC 20 SE SCHOOL HOUSE STREET DEPOE BAY 97341 Kenneth Wells (503) 765-2929 16-MAR-92 23-S 9203 WVR DETROIT MOBIL HWY 22 & USFS RD 46 DETROIT 97342 Donalea Frishman (503) 854-3362 20-MAR-92 2317 WVR KANES HIDEAWAY MARINA, IN 530 CLESTER RD. DETROIT 97324 Michael & Celeste LaMont (503) 854-3362 20-MAR-92 2311 WVR KANES HIDEAWAY MARINA, IN 530 CLESTER RD. DETROIT 97324 Michael & Celeste LaMont (503) 854-3362 20-MAR-92 2411 WVR KANES HIDEAWAY MARINA, IN 530 CLESTER RD. DETROIT 97324 Michael & Celeste LaMont (503) 854-3362 20-MAR-92 2411 WVR MARKET 373 N MANN	-92
9203 WVR DETROIT MOBIL HWY 22 & USFS RD 46 DETROIT 97342 Donalea Frishman (503) 588-9432 26-MAR-92	
2317 WVR KANES HIDEAWAY MARINA, IN 530 CLESTER RD. DETROIT 97342 Michael & Celeste LaMont (503) 854-3362 20-MAR-92	
2611 WVR JOE'S MARKET 373 N MAIN FALLS CITY 97344 Joe Huff 07-JAN-92 01-	
6186 WVR ASTRO WESTERN #500 28600 SALMON RIVER ROAD GRAND RONDE 97347 John Phimister (503) 243-7899 09-JAN-92 21-9	- 92
9911 WVR SPIRIT MOUNTAIN STORE 48480 SW HEBO ROAD GRANDE RONDE 97347 Edward E. Larsen (503) 879-5301 01-APR-92 01-0 223 WVR KIRK'S BP STATION HIWAY 99E & J. ST. HALSEY 97348 James K. Kirk (503) 369-2876 16-JAN-92 22-5	
6960 WVR MID STATE PETROLEUM 211 2ND STREET HALSEY 97348 Donald Wilson (503) 926-1817 23-MAR-92 30-5	-92 21-SEP-92
8135 WVR TEXACO STATION I-5 & HWY. 228 HALSEY 97348 Dale Andert (503) 225-4257 09-MAR-92	/2 21 321 /2
3088 WVR IDANHA KEYLOCK HIGHWAY 22 IDANHA 97350 Leo G. Hance (503) 769-6208 10-FEB-92 22-5	-92
9146 WVR GEORGE SHONES 1082 MONMOUTH STREET INDEPENDENCE 97351 David Vanderzanden 16-JAN-92 01-5	
5542 WVR INDY 76 175 MONMOUTH ST. INDEPENDENCE 97351 Marc H. Nelson (503) 363-7676 30-JAN-92 10-9	-92
5667 WVR PFAFF, STEVE 178 MONMOUTH ST. INDEPENDENCE 97351 Steve Pfaff (503) 838-6506 01-APR-92 01-0	-92
1244 WVR A. LALTON & J. MONTHANY 137 OLD PACIFIC HWY JEFFERSON 97352 Mark Oberson (503) 753-4131 07-JAN-92 29-5	-92
3611 WVR TRUAX TIRE STORES 686 N. 2ND ST. JEFFERSON 97352 Dean Henderson (503) 588-0455 16-MAR-92 25-5	
9195 WVR COUNTRY BOY GAS 805 PARK STREET LEBANON 97355 Richard Mikesell (503) 928-3385 23-JAN-92 07-A	
4265 WVR LEATHERS OIL CO. N. MAIN & HIGHWAY 20 LEBANON 97355 Brent Leathers (503) 661-1244 10-JAN-92 25-4	
7067 WVR LEBANON TEXACO 643 PARK ST. LEBANON 97355 Mark Younger (503) 926-4289 23-MAR-92	06-001-92
9194 WVR M & M MART #4 1550 S. MAIN LEBANON 97355 Richard Mikesell (503) 928-3385 23-JAN-92 07-A	
1972 WVR POOR RICHARDS MINI MART 3510 S. SANTIAM HWY LEBANON 97355 Patricia A. Schaefer (503) 451-1337 28-FEB-92 29-S	
5794 WVR TOWNSEND OIL COMPANY 41494 LACOMB DRIVE LEBANON 97355 Eldon Townsend (503) 258-6747 10-JAN-92 29-5	
6394 WVR UNION STATION 10TH & MAIN LYONS 97358 Ronald & Karen Adams (503) 859-2477 04-FEB-92 28-A	
2517 WK AKACS INDEXART MARTAR, IN JOB CLESTER KD. DETROIT 77342 Michael & Cereste Labort (303) 624-322 20-MAR-92 01 6186 WK RASTRO WESTERN #500 28600 SALMON RIVER ROAD GRAND RONDE 97347 John Phimister (503) 243-7899 09-JAN-92 01 9911 WK RIKY,'S BP STATION HIMAY 99E & J. ST. HALSEY 97348 Jones K, Kirk (503) 369-2876 16-JAN-92 22- 6960 WK RIKY,'S BP STATION HIMAY 99E & J. ST. HALSEY 97348 Jones K, Kirk (503) 369-2876 16-JAN-92 22- 6960 WK RIKACS TATION I-5 & HWY. 228 HALSEY 97348 Jones K, Kirk (503) 369-2876 16-JAN-92 20 3088 WR IDAHAK KEYLOCK HIGHAW 22 IDAHA 97351 David Vanderzanden (503) 363-7676 30-JAN-92 10 5542 WK ROWA NAK KEYLOCK HIGHAW 22 IDAHA 97351 Marce (503) 363-7676 30-JAN-92 10 544 WR PAFF, STEVE 175 MONMOUTH ST. INDEPENDENCE 97351 Nace H. Nelson (503) 363-7676 30-JAN-92 10 1244 WR A. LALTON & J. MONTHANY 137 OLD PACIFIC HW	
3608 WVR MILL CITY TEXACO 382 N. SANTIAM HWY MILL CITY 97360 Phil Murray 15-JAN-92 03-A	74

Tue Jan 1.

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Statewide Summary Report - Zip Code Order

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		FAC NAME	ADDRESS	CITY	ZIP	CONTACT	F	HONE	LOI	CA	АРР
144	WVR	OATS, RICHARD SCREEN PLANT OIL PRODUCTS, INC. SCHMIDT BP WILCO CARDLOCK #3 CLARKS TEXACO	595 E. MAIN	MONMOUTH	97361	Richard Oates Donald Works Robert Rash Ronald Schmidt Thomas E. Smith Mark Younger Rhonda & Clyde Hamstreet Richard Mikesell Craig James Kelson M. R. Wood M. R. Wood Maureen Miller Richard Mikesell Roland Kiepke Harvey L. Baumgarden Richard Mikesell A.M. Hatton Phil Murray Robert Shaffer Don J. Thompson Dennis L. Stoll Donald H. Hartvig John R. Robben M. E. Lematta R. James Clarke Brad Wilson Robert Ridenour Denny Nusbaum Larry Crook Alton Greenwade Jeff Barth Gary R. & Denise S. Clever	((503) 838-4094	19-FEB-92	30-JUN-92	
456	WVR	SCREEN PLANT	29910 CAMP ADAIR ROAD	MONMOUTH	97361	Donald Works	((503) 745-5649	23-MAR-92		
3708	WVR	OIL PRODUCTS, INC.	140 PALMER ST.	MOUNT ANGEL	97362	Robert Rash	((503) 845-226(21-JAN-92	18-JUN-92	
5071	WVR	SCHMIDT BP	220 NORTH MAIN STREET	MOUNT ANGEL	97362	Ronald Schmidt			10-JAN-92	18-JUN-92	
275	WVR	WILCO CARDLOCK #3	105 S. GARFIELD ST.	MOUNT ANGEL	97362	Thomas E. Smith	(503) 845-2257	10-FEB-92	01-001-92	
2381	₩VR	CLARKS TEXACO	610 N. COAST HWY.	NEWPORT	97365	Mark Younger	((503) 926-4289	23-MAR-92		06-0CT-92
1424	WVR	EMBARCADERO DOCK OREGON,	1000 S.E. BAY BLVD.	NEWPORT	97365	Rhonda & Clyde Hamstreet	((503) 265-5435	30-JAN-92	14-MAY-92	
		HOCKEMA COAST OIL	250 N.W. 3RD	NEWPORT	97365	Richard Mikesell	(503) 928-338	23-JAN-92	07-AUG-92	
		KJELDSENS DELI - MARKET	960 SW COAST HIGHWAY	NEWPORT	97365	Craig James Kelson	((503) 336-207	17-MAR-92	01-001-92	
8543	WVR	M.R. WOOD EXXON MINI MART	22 N. COAST HWY.	NEWPORT	97365	M. R. Wood	(503) 265-2414	26-MAR-92	22-SEP-92	
8646	WVR.		835 NORTH COAST HIGHWAY	NEWPORI	97365	M. R. WOOD	(503) 265-2414 503) 265-2414	20-MAK-92	22-SEP-92	
9180	WVR	NEWPORT MARINA	MARINE SCIENCE DRIVE	NEWPORT	97365	Maureen Miller	(503) 265-7750	07-FEB-92	14-MAY-92	
5269	WVK	PORT DUCK MARINA	BAY BLVD.	NEWPORT	Y/302	Richard Mikesell		(202) 920-2203 (507) 225 5903	23-JAN-92	07-AUG-92	
		RON'S MOBIL CAR WASH	DIT N. COAST HIGHWAT	NEWPORI	97362			203) 203°2003 2677) 245-9078	24-MAK-92	15-050-02	
		SAV-ON-GAS TEXACO CAR WAS	1/7 CH COLOT HWY	NEWPOKI	077/5	Rarvey L. Baumgarden		202,202,202.	23-144-92	12-357-92	
			143 S.W. COAST HWY. HWY 101	NEWPORI	91202	A M Hotton		503) 920°330; 503) 00%-0118	23-JAN-92 10- JAN-02	20-5ED-02	
6223	WVK	SOUTH BAY MARKET	-TIWI IUI 5129 CE UTCUNIAV 101	NEWPOKI	77300	A.M. Nation Dhil Munnov		503) 598-0/59	16-MAD-02	27-365-92	
4737		BAY AREA TEXACO & MINI MA CHEVRON CAR WASH DON'S SHELL SERVICE		LINCOLN CITY	07367	Pohert Shaffer		(503) 994-8448	07-141-92	11-MAY-02	04-550-02
2341	111/10	DONIC CHETT CEDVICE	2424 N.E. HWY 101 1410 S.E. HWY 101	ATINCOLN CITY	07367			5037 994 0440	05-FFR-92	21-SEP-92	04 51, 72
3264		GARRISON FUEL	1/10 S E HUY 101	LINCOLN CITY	07367	Dennis Stoll		503) 362-5558	23-MAR-92	23-SEP-92	
315		LINCOLN CITY PRIDE		I INCOLN CITY	07367	Donald H. Hartvin		503) 295-2668	01-APR-92		
4937		ROBBEN, INC. DBA NORTH LIN	3232 N.E.HIGHWAY 101	LINCOLN CITY	97367	John R. Robben		503) 994-5530	19-MAR-92	30-JUL-92	
			HWY 18 & OLD HWY 101	OTIS	97368	M. E. Lematta	,		30-JAN-92	24-SEP-92	
			4077 SALMON RIVER HWY	OTIS	97368	R. James Clarke	((503) 994-2415	30-MAR-92	29-SEP-92	
9018	WVR	NATIONAL CARDLOCK NETWORK	7TH & APPLEGATE	PHILOMATH	97370	Brad Wilson	Ċ	503) 926-1817	24-MAR-92		
		RIDENOUR OIL CO., INC.	1841 MAIN (P.O. BOX 430)	PHILOMATH	97370	Robert Ridenour	(503) 929-3562	05-MAR-92	17-SEP-92	
			1414 MAIN STREET	PHILOMATH	97370	Denny Nusbaum	((503) 929-3054	08-JAN-92	11-SEP-92	
		POLK COUNTY FARMERS' COOP	8870 RICKREALL ROAD	RICKREALL	97371	Larry Crook			28-JAN-92		
		RICKREALL FARM SUPPLY, INC	130 MAIN ST.	RICKREALL	97371	Alton Greenwade	((503) 623-236	14-JAN-92	04-SEP-92	
320	WVR	CLAYTON AUTOMOTIVE INC. D	39011 HWY. 226	SCIO	97374	Jeff Barth	((503) 394-338	22-JAN-92	15-JUN-92	
8506	WVR	THE MECHANIC SHERIDAN TEXACO T.J.'S SUPER SERVICE	38955 HWY 226	SCIO	9/3/4	Gary R. & Denise S. Clever	enger ((503) 394-3304 (507) 500 0450	15-JAN-92	04-SEP-92	
3610	WVR	SHERIDAN TEXACO	SUS BRIDGE ST.	SHERIDAN	9/5/8	Phil Murray		,7U2) 700-V475 (En7) 9/7 799/	10-JAN-92		
190	WVR	L.J.'S SUPER SERVICE	JU/ W. MAIN SJ. 21/ CALTUED	SHERIDAN SILETZ	9/3/8	Wesley Windle Glick) R	203) 043-2000 203666-2506	00-140-92	29-JUN-92	
10024	WVK.	SILETZ MOBIL	214 GAITHER 315 GAITHER	SILETZ	07380	M P Wood	-	5031 265-2612	26-MAR-92	22-SEP-92	
3612			621 N. WATER ST.	SILVERTON	07381	Phil Mucray	,	(JUJ) EUJ E411	15-JAN-92	03-AUG-92	
8368	UVP	DUNMIRE BP	604 MCCLAINE ST.	SILVERTON	97381	Robert Rash	(503) 845-226	21-JAN-92	18-JUN-92	
6882	UVR	EARL HARTMAN CHEVROLET	206 - 210 S. WATER ST.	SILVERTON	97381	Earl C. Hartman	Ċ	503) 873-5983	14-JAN-92	19-AUG-92	
199	WVR	HATTEBERGS CHEVRON		SILVERTON	97381	Howard W. Hatteberg	ć	503) 873-560	16-MAR-92		
		TNT MARKET	700 MCCLAINE	SILVERTON	97381	Jim Furman	(503) 873-3880	21-JAN-92	21-SEP-92	
		WILCO FARMERS-SILVERTON B		SILVERTON	97381	Thomas E. Smith	((503) 845-2257	10-FEB-92	01-007-92	
		DON'S EXXON 383	110 E. WASHINGTON STREET	STAYTON	97383	Donald McCall	(503) 769-2400	30-MAR-92		
			333 N. 1ST AVENUE	STAYTON	97383	Gary R. & Denise S. Clever Phil Murray Wesley Windle Glick Larry D. Weaver M. R. Wood Phil Murray Robert Rash Earl C. Hartman Howard W. Hatteberg Jim Furman Thomas E. Smith Donald McCall Richard Mikesell	Ċ	503) 928-3385	23-JAN-92		
1366	WVR	HANCE OIL CO. CAARDLOCK	2010 W. WASHINGTON ST.	STAYTON	97383	Leo G. Hance	Ċ	503) 769-5479	10-FEB-92	15-MAY-92	
3706	WVR.	STAYTON BP	820 N. FIRST ST.	STAYTON	97383	Robert Rash	(503) 845-226	21-JAN-92	01-JUL-92	
3609	WVR.	STAYTON TEXACO	789 N. 3RD AVENUE	STAYTON	97383	Phil Murray			15-JAN-92	03-AUG-92	
1285	WVR	WILCO FARMERS	1385 N. FIRST	STAYTON	97383	Thomas E. Smith	(503) 845-2257	10-FEB-92	01-0CT-92	
			11212 HWY 226	MEHAMA	97384	Donald F. Wiltse	· ((503) 859-2215	10-JAN-92	18-SEP-92	10 1111 00
9754	WVR	FAST STOP GAS/BP	104 W STARR	SUBLIMITY	97385	Leo G. Hance Robert Rash Phil Murray Thomas E. Smith Donald F. Wiltse Wayne Burger			18-FEB-92	17-AUG-92	19-108-25

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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT William H. Van Valin Kirby D. Wilson Richard Mikesell Lowell & Elva Funk Mark Younger Charles & Vicki Rowlett Howard Stahr Craig James Kelson James & Gina Van Vleck Pat Seibel Richard Mikesell Richard Mikesell Michael T. Rowley Lee E. & Helen R. Weltner Phil Murray Courtney Jones Clifford B. Jenne Brad Templeton Deborah Harrison David B. Allen Chuck Bierman Robert Newburn Robert Newburn RoB FOREST James Anderson Kenneth B. Farmer Donald H. Hartvig Donald H. Hartvig Robert Newburn Curtis McCracken Richard Wright Verral E. King Robert Newburn Donald H. Hartvig John Phimister Steve Beard Stuart W. Barr Bill Fogelson Vernon & Margaret Iverson Philip M. Schermerhorn Roy Spagnola II	PHONE		CA	APP
5768		BILL VAN VALIN CHEVRON	1762 MAIN 1801 MAIN STREET 1306 MAIN STREET 4420 HWY 20 1810 MAIN ST. 7775 NW HWY 101	SWEET HOME	07386	William H. Van Valin	(503) 367-20	0 15-141-02	08-CED-02	
		KIRBY'S QUICK SERVICE	1801 MAIN STREET	SWEET HOME	97386	Kirby D. Wilson	(503) 367-52	3 24-MAR-02	22-SEP-02	
		M & M #6	1306 MAIN STREET	SWEET HOME	97386	Richard Mikesell	(503) 928-33	5 23-14N-92	07-416-92	
2057	18/0	MID-STATE PETROLEUM CARDL	4420 HUY 20	SUFET HOME	07386		(503) 720 330	2 2/ WAD-02	01-001-02	
7065	1JVP	SUFFTHOME TEXACO	1810 MAIN ST	SWEET HOME	07386	Mark Younger	(503) 507-29	0 23-MAD-02	01 001-92	06-0CT-92
6527		SALISHAN CHEVRON	7775 NU HUY 101	CLENEDEN REA	07388	Charles & Vicki Rowlett	(503) 764-23	5 13-140-02	28-SED-02	00 001 92
7639		SWEETHOME TEXACO SALISHAN CHEVRON FULL CIRCLE, INC. MOBIL MINI MART OLALLA GROCERY PMK DISTRIBUTING STEVE CARVERS BP BALL BROS. CHEV. BILL'S BP	33685 HIGHWAY 99E, PO BOX	TANGENT	97389	Howard Stahr	(503) 926-44	4 05-MAR-92	23-SEP-92	
2230	WVR	MOBIL MINI MART	41 OLALIA RD.	TOLEDO	97391	Craig James Kelson	(503) 336-20	1 17-MAR-92	01-0CT-92	
5125	WVR	OLALLA GROCERY	1000 STURDEVANT ROAD	TOLEDO	97391	James & Gina Van Vleck	(818) 881-822	7 16-JAN-92	18-JUN-92	
7215	WVR	PMK DISTRIBUTING	HWY. 20 & ASH	TOI EDO	97391	Pat Seibel	(503) 336-38	6 24-MAR-92	01-001-92	
5853	WVR	STEVE CARVERS BP	254 W. HWY 20	TOLEDO	97391	Richard Mikesell	(503) 928-33	5 23-JAN-92	07-AUG-92	
3840	WVR	BALL BROS. CHEV.	5325 DENVER ST.	TURNER	97392	Elton Ball	(503) 743-212	5 23-MAR-92	17-SEP-92	
5772	WVR	BILL'S BP	HWY 101	WAI DPORT	97394	Richard Mikesell	(503) 928-338	5 23-JAN-92	07-AUG-92	
1336	WVR	ROWLEY'S CHEVRON SERVICE	US HWY 101 & HWY 34	WALDPORT	97394	Michael T. Rowley	(503) 563-450	1 07-JAN-92	08-SEP-92	
9830	WVR	TIDEWATER SERVICE	HWY. 20 & ASH 254 W. HWY 20 5325 DENVER ST. HWY 101 US HWY 101 & HWY 34 10076 ALSEA HIGHWAY	WALDPORT	97394	Lee E. & Helen R. Weitner	(503) 528-37	1 30-MAR-92	29-SEP-92	
5663	UVR	FORT HILL TEXACO	10076 ALSEA HIGHWAY 25715 HIGHWAY 22 & 18 662 NE MAIN STREET	UTILAMINA	97396	Phil Mucray	(503) 588-04	5 15-JAN-92	14-416-92	
8945	UVR	J C JONES OIL COMPANY	662 NE MAIN STREET	WILLAMINA	97396	Courtney Jones	(503) 300-05/	3 03-MAR-92	28-950-02	
9891	UVR	PETROLEUM ENERGY PRODUCTS	BETWEEN C AND D STREETS	UTELANTNA	97396	Clifford B Jenne	(503) 222-222	1 30-MAR-92	22-SEP-92	
		BRAD'S MOBIL	89920 PRAIRIE RD	FUGENE	97401	Brad Templeton	(503) 344-557	7 18-FFR-Q2	17-4110-92	
		BUDGET RENT A CAR OF EUGE	90550 GREENHUL ROAD	FUGENE	97401	Deborah Harrison	(503) 344-165	0 23-MAR-02	II AUG /C	
1204	UVR	CHEVRON U.S.A., INC 92	274 CORURG RD	FUGENE	97401	David B Allen	(503) 343-012	1 20-MAR-02		
3092	UVR	CITY CENTER CAR WASH INC	274 COBURG RD. 544 WEST 7TH 325 COBURG ROAD 470 COBURG ROAD 32959 VAN DUYN RD. 32910 VAN DUYN RD.	FUGENE	97401	Chuck Bierman	(503) 484-034	5 30-MAR 72	21-4116-92	
3305	UVR	CORURG DARI MART	325 COBURG ROAD	FUGENE	97401	Robert Newburn	(503) 404 00-	3 10-FER-02	14-cED-02	
3372		COBURG ROAD EXYON	470 COBURG ROAD	FUGENE	07401	Robert Newburn	(503) 683-443	3 10-FEB-02	14-SED-02	
9208		COBURG TEXACO	32959 VAN NULYN RD	FUGENE	97401	ROB FOREST	(503) 682-38/	5 15-JAN-92	30-SED-02	
1601		ELIGENE TRUCK HAVEN INC /	32910 VAN DUYN RD	FUGENE	07401	James Anderson	(503) 485-217	7 13-141-02	10-1447-02	20-APR-92
5429		FARMER KENNETH B.	407 E. 11TH 280 WILLAMETTE STREET 285 RIVER ROAD HWY. 99 & OLD WILLAMETTE 1796 WILLAMETTE STREET	FUGENE	97401	Kenneth B Farmer	(503) 363-622	5 03-FEB-02	20-SED-02	
6012	UVP	FRANKO #39	280 WILLAMETTE STREET	COBLIRG	07601	Donald H. Hartvin	(503) 295-264	8 01-ADD-02	27 321 72	
6113	UVR	FRANKO #47	285 RIVER ROAD	FUGENE	97401	Donald H. Hartvig	(503) 205-26	8 01-400-02		
1470	UVR	GOSHEN TRUCK STOP	HWY. 99 & OLD WILLAMETTE	GOSHEN	97401	Robert Newburn	(503) 683-447	3 10-FE8-02	14-950-02	
6455	UVR	HIGGINS PETROLEUM, INC.	1796 WILLAMETTE STREET	FUGENE	97401	Kelly Higgins	(503) 343-03	3 10-MAR-02	24-111-92	
2188	UVR	J C PENNEY CO.INC.	300 VALLEY RIVER CENTER	FUGENE	97401	Robert Newburn	(503) 683-443	3 10-FER-92	L4 00L 7L	
		MCCRACKEN MOTOR FREIGHT,	2120 W. 7TH PL	FUGENE	97401	Curtis McCracken	(503) 222-420	1 31-MAP-92		
		PANOCO, INC	472 WEST 7TH	FUGENE	97401	Richard Wright	(503) 286-962	1 06-FFB-92	06-AUG-92	
		SAM'S UNION SERVICE	591 WILLAMETTE ST.	EUGENE	97401	Verral F. King	(503) 484-515	1 01-APR-92	ve ,	
		STAGE STOP MARKET & DELI	285 WEST 6TH	EUGENE	97401	Robert Newburn	(503) 683-443	3 03-FEB-92	14-sep-92	
		TEXACO SERVICE STATION	472 WEST 7TH 591 WILLAMETTE ST. 285 WEST 6TH 1585 COBURG ROAD 11 COBURG RD. 1690 WEST 18TH 1520 PEARL STREET 925 6TH AVE. W. 4943 BARGER DRIVE	EUGENE	97401	Dale Andert	(503) 225-425	7 09-MAR-92		
		UNOCAL 3838	11 COBURG RD.	EUGENE	97401	Thomas R Melvin		20-MAR-92	25-SEP-92	
		18TH & CHAMBERS 7-11	1690 WEST 18TH	EUGENE	97402	Robert Newburn	(503) 683-443	3 10-FFB-92	14-SEP-92	
		ARCO-FRANKO STATION #2	1520 PEARL STREET	FUGENE	97402	Donald H. Bartvig	(503) 295-260	8 01-APR-92		
		ASTRO/CHEVRON #207	925 6TH AVE. W.	FUGENE	97402	John Phimister	(503) 243-789	9 09-JAN-92	21-SEP-92	
		BARGER TEXACO	4943 BARGER DRIVE	FUGENE	97402	Steve Reard	(503) 298-23	0 21-JAN-92	08-SEP-92	
		BARR, STUART W.	87340 DUKHOBOR RD.	FUGENE	07/02	Stuart V Barr	(503) 3/2-103	6 30-MAR-92	00 DEN 7E	
		BILL FOGELSON'S TEXACO	720 WEST 7TH	EUGENE	07/02	Rill Fogeleon	(503) 345-104	6 27-MAD-02	10-SED-02	
1091		CHEVRON U.S.A., INC 93	2305 H 11TH AVE	EUGENE	07/.02	Vernon & Margaret Iverson	(503) 343-100	C 21-μακ-72 ζ Ω1_λ00_Ω2	10-3EF-72 01-0CT-02	
1001	WVK	CHEVRON U.S.A., INC. " YJ	2373 WE TITE AVE: 885 HICHMAY OG VORTH	EUGENE	07/02	Dilip M. Schermachane	(JUJ) (41-00) (50%) 200_6//	9 01-AFK-92 8 0/_EED_00	25_0ED_02	
7179	NVR IN/P	CURTIS SERVE-N-SAVE FAT CITY TEXACO FERN RIDGE STORE	1705 11 1110 1705 11 1110	EUGENE	07/02	Pov Spanola II	(503) 000-24	0 04-FED-94	16_ 1111_07	
71/8	WVK	FALLIT TEAALU		EUGENE	91402	Ruy Spagnota II Chaples Dippell	(JUJ) 344-074 (E07) 490 009	0 13-JAN-96	10-JUN-92	
2030	WVK	FERN KIUGE STUKE	27337 ULEAK LAKE KU. 1701 HEAT 11TH AVENUE	EUGENE EUGENE	07/02	Chartes Pinnett Depaid # Nartwic	(503) 009-093 (503) 005-044	0 10-14N-72	01-001-92	
0101	WAL	FRANKO #10	27359 CLEAR LAKE RD. 1701 WEST 11TH AVENUE 376 HWY 99 NORTH	EUGENE	97402	Donald R. Hentvig	(303) 293°200 (ENZ) 308,344	0 01-APK*92		
D 104	WVK	FRANKO #11		CUGENE	71402	Bill Fogelson Vernon & Margaret Iverson Philip M. Schermerhorn Roy Spagnola II Charles Pinnell Donald H. Hartvig Donald H. Hartvig	(303) 293-200	5 01-APK-92		

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FAC ID		FAC NAME	ADDRESS	CITY	ZIP		PHONE		LOI	СА	APP
6111		FRANKO #3	4701 W. 11TH	EUGENE	97402	Donald H. Hartvig Bettie Hansey Phil Murray David Coplin Dean Henderson Robert Newburn Robert Newburn Richard Wright Richard Wright ROB FOREST Dale Andert Dale Andert Perry Otis Tomlin III Brad Templeton			01-APR-92		
2023	WVR	GREEN HILL SERVICE	28808 WEST 11TH AVE.	EUGENE	97402	Bettie Hansey			21-JAN-92	01-OCT-92	
318	WVR	GREEN HILL SERVICE GREENHILL ARCO	6085 WEST 11TH AVE.	EUGENE	97402	Phil Murray			15-JAN-92		
			90600 GREENHILL RD(JET FA	EUGENE	97402	David Coplin	(503)	688-0971	25-MAR-92		
		MERRITT TRUAX, INC.	1395 HWY. 99 N.	EUGENE	97402	Dean Henderson			15-JAN-92	25-SEP-92	
		PACIFIC PETROLEUM CORP	1695 W. 18TH	EUGENE	97402	Robert Newburn			10-FEB-92		
5230	WVR	PACIFIC PETROLEUM CORP. O		EUGENE	97402	Robert Newburn	(503)	683-4433	10-FEB-92	14-SEP-92	
4365	WVR	PANOCO, INC #3	485 HIGHWAY 99N	EUGENE	97402	Richard Wright	(503)	286-9621	06-FEB-92	06-AUG-92	
		PANOCO, INC #4	2735 RIVER ROAD	EUGENE	97402	Richard Wright			06-FEB-92		
		PRAIRIE ROAD CARDLOCK	2600 PRAIRIE ROAD	EUGENE	97402	ROB FOREST	(503)	682-3865	16-JAN-92	25-SEP-92	
		RICK'S TEXACO	3175 W. 11TH	EUGENE	97402	ROB FOREST	(503)	682-3865	15-JAN-92	30-SEP-92	
		TEXACO SERVICE STATION	2690 RIVER ROAD 1080 W. 7TH AVE.	EUGENE	97402	Dale Andert	(503)		09-MAR-92		
		TEXACO STATION	1080 W. 7TH AVE.	EUGENE	97402	Dale Andert	(503)		09-MAR-92		
			751 HWY. 99 NORTH 2305 W. 11TH ST.	EUGENE	97402	Perry Otis Tomlin III	(503)		20-MAR-92		
		UNOCAL 6050	2305 W. 11TH ST.	EUGENE	97402	Brad Templeton	(503)	344-5537	18-FEB-92	17-AUG-92	
10887	WVR	EUGENE MOBILE VILLAGE	4774 FRANKLIN BLVD	EUGENE	97403	Bruce Ogg	(818)	335-7048	30-MAR-92	44 02	
				EUGENE	97403	Robert Newburn	(503)		10-FEB-92		
7708	WVR	PANOCO, INC. #7	2091 FRANKLIN BLVD.	EUGENE	97403	Richard Wright	(503)		06-FEB-92	06-AUG-92	
		TEXACO SERVICE STATION	3640 GLENWOOD	EUGENE	97405	Dale Andert	(503)		09-MAR-92		
0139	WVK	TEXACO STATION	4197 FRANKLIN BLVD.	EUGENE	97403	Dale Andert	(202)		09-MAR-92 09-MAR-92		
		TEXACO STATION UNIVERSITY TEXACO		EUGENE	97403	Date Ander L	(202)			04-ALIC-02	
		CLARK HOLLIS TEXACO	615 RIVER ROAD	EUGENE	07606	Clark Hollis	(503)	688-3270	18-FEB-92	14-SEP-92	
		FRANKO #13	895 RIVER ROAD	FUGENE	97404	Donald H Hartvig	(503)	295-2668	01-APR-92	14 021 72	
			50 DIVISION	FUGENE	97414	ROB FOREST Dale Andert Dale Andert Perry Otis Tomlin III Brad Templeton Bruce Ogg Robert Newburn Richard Wright Dale Andert Dale Andert Dale Andert Peter Kryl Clark Hollis Donald H. Hartvig Barry Naone	(503)	731-6487	24-FFB-92	01-007-92	
		SANTA CLARA ARCO	2585 RIVER ROAD	FUGENE	97404	Phil Murray	(503)	588-0455	15-JAN-92	14-AUG-92	
3263	UVR	FUGENE QUALITY CAR WASH	115 WEST 29TH	EUGENE	97405	Robert Newburn	(503)	683-4433	10-FEB-92		
6115	WVR	FRANKO #15 FRANKO #48 JACKSON, BERNARD L.	87614 MCVAY HWY.	EUGENE	97405	Donald H. Hartvig	(503)	295-2668	01-APR-92		
6055	WVR	FRANKO #48	2795 WILLAMETTE STREET	EUGENE	97405	Donald H. Hartvig	(503)	295-2668	01-APR-92		
5869	SWR	JACKSON, BERNARD L.	04219 AGNESS RD.	AGNESS	97406	Bernard L. Jackson	(503)	247-7233	27-MAR-92	10-SEP-92	
338	SWR	ALLEGANY STORE ALVADORE STORE	COOS RIVER HWY	ALLEGANY	97407	Raymond Solomon			16-MAR-92		
580	₩VR	ALVADORE STORE	90828 RAIL RD. ST.	ALVADORE	97409	Candice & Terry Weils	(503)	689-3551	13-JAN-92	21-SEP-92	
		AZALEA GENERAL STORE	462 AZALEA GLEN ROAD	AZALEA	97410	Judith Tegarden-Leseman	(503)	837-3456	20-MAR-92	01-0CT-92	
		GODDARD ENERGY CO.	2ND & ELMIRA / P.O. BOX 2	BANDON	97411	Donald Goddard	(503)	347-2808	29-JAN-92	01-0CT-92	
		RON'S OIL COMPANY SERVICE	101 SOUTH	BANDON	97411	Ron La Franchi	(503)	396-5571	10-FEB-92		
		BLACHLY COUNTRY STORE	20448 HWY 36	BLACHLY	97412	Sharon Berry	(503)	925-3365	27-JAN-92	14-MAY-92	
		HORTON MARKET	94636 HORTON RD.	HORION .	97412	Santord Rice	(505)	925-3290	24-JAN-92	14-MA1-92	
		MCKENZIE BRIDGE GENERAL S	19037 TATLUK KUAU 5/880 MILL CREEK DOAD	MUKENZIE BRI	97415	Steven Harpick Considing Harpic	(507)	181-0147	10-JAN-92	11-254-45	
		PETE'S TEXACO BROADBENT MARKET	54880 MILL CREEK ROAD BOX 67	DLUE KIVEK	77413	Beuland Colden	(503)	404-7403 572-5761	15. 141-02	01-001-02	
		ALLIANCE FAST MART	500 CHETCO AVE	BROADBERT	07/15		(707)	72-2201	24-MAR-02	01-001-02	
		BI-MOR STATIONS #18	16021 HWY. 101		07/15	Mike Moran	(503)	772-2053	22-JAN-92	17-SEP-92	
		BROOKING'S SHELL	600 CHETCO	BRUUKINGS	97615	Harry Turner	(503)	469-1977	16-MAR-92	09-Nov-92	
		COLVIN OIL CO., NORTH GAT	1023 CHETCO AVENUE	RROOKINGS	07/.15	Scott Pedd	(503)	479-5343	23IAN-92	28-SEP-92	
		D & H CHEVRON	548 CHETCO AVE.	BROOKINGS	97415	Dan W. Carpenter	(503)	469-5143	16-MAR-92	01-JUN-92	
		MOBIL MINI MART	16258 HWY 101 SOUTH	HARBOR	97415	Gilbert Batty	(503)	469-4666	19-MAR-92	17-SEP-92	
			1002 CHETCO AVE.	BROOKINGS	97415	Dan W. Carpenter	(503)	469-5143	16-MAR-92	01-0CT-92	
		KAY'S MARKET	18493 HWY. 42	CAMAS VALLEY	97416	Lois White	(503)	679-6350	01-APR-92		
		MARKET PLUS	P.O. BOX 205	CAMAS VALLEY	97416	Manford Amos	(503)	445-2385	12-FEB-92	10-NOV-92	
		B.P.SERVICE STATION	5TH & MAIN ST.	CANYONVILLE	97417	E. D. Dirksen	(503)	672-1666	01-APR-92	01-0CT-92	
						Peter Kryl Clark Hollis Donald H. Hartvig Barry Naone Phil Murray Robert Newburn Donald H. Hartvig Donald H. Hartvig Bernard L. Jackson Raymond Solomon Candice & Terry Weils Judith Tegarden-Leseman Donald Goddard Ron La Franchi Sharon Berry Sanford Rice Steven Harbick Geraldine Harris Rowland Golden August D. Otten Mike Moran Harry Turner Scott Pedd Dan W. Carpenter Gilbert Batty Dan W. Carpenter Lois White Manford Amos E. D. Dirksen					

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Statewide Summary Report - Zip Code Order

FAC ID	REG	FAC NAME	ADDRESS 203 S.W. 4TH 358 N. MAIN 225 MAIN STREET 22501 HWY. 36 27051 HWY. 36 997 NEWMARK 3686 CAPE ARAGO HWY	CITY	ZIP	CONTACT			LOI	CA	APP
1051	SUR	CANYON TEXACO	203 S.W. 4TH	CANYONVILLE	97417	Mike Monteleone John Shirtcliff Russell Jake Young Patricia & Troy Dixon	(503)	830-6344	27-MAR-92	26-MAY-92	
686	SWR	PENNY PINCHER GASOLINE #2	358 N. MAIN	CANYONVILLE	97417	John Shirtcliff	(503)	863-3521	16-JAN-92	01-JUN-92	
9070	S₩R	RUSSELL JAKE YOUNG	225 MAIN STREET	CANYONVILLE	97417	Russell Jake Young	(503)	839-4125	23-MAR-92	01-001-92	
8043	LIVR	LOW PASS STATION & MARKET	22501 HWY. 36	CHESHIRE	07410	Patricia & Troy Dixon	(503)	998-6066	1314N-92	02-SEP-92	
8343	WVR	PERRY, MARVIN L. & JEFFER	27051 HWY. 36	CHESHIRE	97419	Marvin L. & Jeffrey M. Perry	(503)	998-2042	23-MAR-92	02 021 72	
6222	SWR	ASTRO #228	997 NEWMARK	COOS BAY	97420	John Phimister	(503)	243-7899	09-JAN-92	21-SEP-92	
9263	SWR	BARVIEW MARKET	3686 CAPE ARAGO HWY	COOS BAY	97420	Walter Hazen	(503)	888-2322	25-MAR-92	19-MAY-92	
5154	SWR	BASSETT-HYLAND ENERGY CO.	1059 EVANS BLVD.	COOS BAY	97420	Maurie Bassett	(503)	267-2107	19-MAR-92	21-SEP-92	
1719	SWR	BASSETT-HYLAND ENERGY CO.	425 LOCKHART	COOS BAY	97420	Maurie Bassett	(503)	267-2107	19-MAR-92	21-SEP-92	
3603	SWR	BI-MOR STATIONS #10	392 SO. 4TH	COOS BAY	97420	Mike Moran 🖞	(503)	772-2053	22-JAN-92	17-SEP-92	
8045	SWR	COOS BAY TEXACO	1064 EVANS BLVD.	COOS BAY	97420	Harry C. Davis	(503)	756-3426	23-MAR-92	29-SEP-92	
6027	SWR	COOS GRANGE SUPPLY	1085 SO. 2ND	COOS BAY	97420	Keith T. Johnson	(503)	267-7051	30-MAR-92	01-0CT-92	
1378	S₩R	CRAIG & CRAIG INC. DBA TN	899 "D" STREET/P.O.BOX 40	COOS BAY	97420	Thomas A. Craig	(503)	267-2409	24-FEB-92	17-SEP-92	
9324	S₩R	DAVEY JONES LOCKER	5092 BOAT BASIN DRIVE	CHARLESTON	97 420	Clifford T. George	(503)	269-2717	21-JAN-92	11-SEP-92	
10858	swr	DAVIS OIL INC CARDLOCK	1655 S. 101 HWY	COOS BAY	97420	Harry C. Davis 👘 🖇	(503)	756-3426	23-MAR-92	29-SEP-92	
8523	SWR	EMPIRE ARCO	"1022 NEWMARK	COOS BAY	97420	Hal K. Graham	(503)	756-6216	27-JAN-92	01-001-92	
6022	SWR	EMPIRE UNION	898 NEWMARK	COOS BAY	97420	Wilson Cho	(503)	888-9419	30-MAR-92	01-0CT-92	
2180	SWR	FLETCHERS MARINE FUEL & S	7761 ALASKA PACKERS RD.	COOS BAY	97420	Douglas M. Fletcher	(503)	267-3392	03-FEB-92	29-SEP-92	
6023	SWR	FRANKO #9	646 SIXTH STREET	COOS BAY	97420	Donald H. Hartvig	(503)	295-2668	01-APR-92		
5986	SWR	GEORGE'S ENGLEWOOD MARKET	1434 S.W. BLVD.	COOS BAY	97420	Clifford T. George	(503)	269-2717	13-JAN-92	11-SEP-92	
6909	SWR	MORIN'S TEXACO	339 NORTH BROADWAY	COOS BAY	97420	Richard W. Morin			10-JAN-92	13-MAY-92	
/1/6	SWR	NORTH BROADWAY EXXON	525 N. BROADWAY	COOS BAY	97420	Hal K. Graham	(503)	756-6216	27-JAN-92	01-0CT-92	
1232	SWR	UCEAN BLVD IEXACU	167U UCEAN BLVD.	COOS BAY	97420	Harry C. Davis	(503)	756-5426	23-MAR-92	29-SEP-92	
11004	SWK	PAI AND MIKES VALLET MART	898 NEWMARK 7761 ALASKA PACKERS RD. 646 SIXTH STREET 1434 S.W. BLVD. 339 NORTH BROADWAY 525 N. BROADWAY 1670 OCEAN BLVD. 3141 HWY 42 585 NEWMARK STREET 1622 CAPE ARAGO HWY. 8083 CAPE ARAGO HWY.	LOUS BAY	97420	Donald Drawson	(503)	269-5360	01-APR-92	25-SEP-92	
271	SWK	PRIDE OF OREGON SERVICE S	1622 CADE ADACO HUY	LOOS BAT	97420	Phil Murray Repold (Vegeuening	(503)	500-0455	25-MAR-92		
0788	SMIC	SHIDTCH LEES STODE	8083 CADE ADAGO MUY	COOS BAT	07/20	Mary McCettigan	(503)	267-3353	21-MAK-92		
7258	SUP	ARNOLD'S UNION 76	505 N CENTRAL		07/23	Arpold Sturgill	(503)	304-4441	16_WAD_02	01-007-02	
9313	SWR	BASSETT-HYLAND ENERGY CO.	340 W MAIN	COQUILLE	97423	Maurie Bassett	(503)	267-2107	19-MAR-92	01-007-92	
9536	SWR	FOUR CORNERS GROCERY	HC 83 BOX 3000	COQUILLE	97423	Kae Perry	(503)	396-3616	10-JAN-92	26-AUG-92	
4009	SWR	RON'S OIL #3	325 N. ADAMS ST.	COQUILLE	97423	Ron La Franchi	(503)	396-5571	10-FEB-92	20	
5022	SWR	SHELL SERVICE STATION	279 N. CENTRAL	COQUILLE	97423	David Batty	(503)	469-4666	30-MAR-92		
3572	WVR	BI-MOR STATIONS, #16	2500 E. MAIN ST.	COTTAGE GROV	97424	Mike Moran	(503)	772-2053	22-JAN-92	17-SEP-92	
5887	WVR	BILLS TEXACO	54 PACIFIC HIGHWAY SOUTH	COTTAGE GROV	97424	S. Neil Jongeward	(503)	345-9404	23-MAR-92		
254	WVR	BOYCE SHELL SERVICE	424 SOUTH PACIFIC HIGHWAY	COTTAGE GROV	97424	James E. Boyce	(503)	942-8224	23-JAN-92	30-SEP-92	
10627	WVR	CLOSED SERVICE STATION	801 WASHINGTON	COTTAGE GROV	97424	Richard Wright	(503)	286-9621	19-FEB-92	06-AUG-92	
8688	WVR	COTTAGE GROVE THRIFTY	1220 PACIFIC HWY 99N	COTTAGE GROV	97424	Robert Newburn	(503)	683-4433	18-FEB-92	01-0CT-92	
740	WVR	DAVID, KENNETH A. & ALICI	73948 LONDON RD	COTTAGE GROV	97424	Kenneth & Alicia David	(503)	942-5738	27-MAR-92	24-AUG-92	
1436	WVR	GLAUSI OIL COMPANY	803 S. PACIFIC HWY.	COTTAGE GROV	97424	Otto Glausi	(503)	687-1234	19-MAR-92	28-SEP-92	
1435	WVR	GLAUSI STATIONS, INC.	ROW RIVER ROAD & VILLAGE	COTTAGE GROV	97424	Otto Glausi	(503)	687-1234	19-MAR-92	01-0CT-92	
5972	WVR	PARRISH	33399 ROW RIVER ROAD	COTTAGE GROV	97424	Will & Jan Parrish			10-JAN-92	17-JUL-92	
3282	WVR	VILLAGE GREEN EXXON	690 ROW RIVER ROAD	COTTAGE GROV	97424	Robert Newburn	(503)	683-4433	10-FEB-92	14-SEP-92	
9985	CR	CRESCENT CREEK COTTAGES	MP 71 HWY 58	CRESCENT LAK	97425	James R. Roach, Sr	(503)	455-2524	01-APR-92		
650	CR	CRESCENT LAKE LODGE & RES	CRESCENT LAKE, P.O. BOX 7	CRESCENT LAK	97425	Frances L. Sauza	(503)	455-2505	23-MAR-92	or on- on	
9060	CR	URESENT LAKE CHEVRON	MILE POST 69 1/2, HWY 58;	CRESCENT LAK	97425	Mark J Walker	(503)	435-2555	16-MAR-92	01-0CT-92	
646	CR	ODELL SPORTSMAN CENTER	P.O. BOX 14/HWY. 58	CRESCENT LAK	97425	Joseph G. & Margaret A. Capron	(503)	433-9417	U1-APR-92	01 007 02	
2135	WVK	CRESWELL COMMERCIAL SERVI	DO N. MILL OF COUTH FRONT STREET		91420	Russell Jake Toung Patricia & Troy Dixon Marvin L. & Jeffrey M. Perry John Phimister Walter Hazen Maurie Bassett Maurie Bassett Mike Moran Harry C. Davis Keith T. Johnson Thomas A. Craig Clifford T. George Harry C. Davis Hal K. Graham Wilson Cho Douglas M. Fletcher Donald H. Hartvig Clifford T. George Richard W. Morin Hal K. Graham Harry C. Davis Donald Drawson Phil Murray Ronald J. Hogewoning Mary McGettigan Arnold Sturgill Maurie Bassett Kae Perry Ron La Franchi David Batty Mike Moran S. Neil Jongeward James E. Boyce Richard Wright Robert Newburn Kenneth & Alicia David Otto Glausi Will & Jan Parrish Robert Newburn James R. Roach, Sr Frances L. Sauza Mark J Walker Joseph G. & Margaret A. Capron William C. Spencer	(503)	077-4040 205-/9/4	23-MAK-92	01-ULI-92 27-0ED-02	
4104	HUN	OUCONFEE CONTENCINE OFMAT	JJ JUDIN INCHI DINELI	CRESWELL CRESWELL	71420	VILLIAM L. SPENCEP	(503)	077*4040 805_/714	23"MAK-92	2373EP774	
		CRESWELL SHELL #8 GREEN RIVER LUMBER	80616 DAVISSON RD.	CRESWELL	07626	William C. Spencer William C. Spencer James J. Billo Phillip D. Clapp	(503)	942-0542	23-MAP-02	00 AUG 72	
2020	MAK	ARLEN RIVER LUNDER	GODIO DAVISOON ND.	UNLONLLL	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	initial proceeding	(303)	/76 VJ76	Lo pour 74		

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Statewide Summary Report - Zip Code Order

FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT	PHONE	LOI	CA	APP
9332	WVR	JOHNSTON INVESTMENT, INC.	5 SOUTH FRONT, P.O. BOX 9	CRESWELL	97426	Johnny Johnston Dale Andert Elaine Kitcher Robert Newburn Marion Smart Larry & Edna Strong Norman & Lorraine Liles David Boyd Bob & Flora Jones Kenneth R. Owens Bill Johnson Ernest D./Barbara S. Wheeler	(503) 895-4255	30-MAR-92	01-0CT-92	
1391	₩VR	TEXACO SERVICE STATION	270 E. OREGON & 1-5	CRESWELL	97426	Dale Andert	(503) 225-4257	09-MAR-92		
3640	SWR	CURTIN GENERAL STORE CURTIN TRUCK STOP JOHN'S TEXACO STRONG'S MARKET	SO. SIDE OLD HWY. AT CURT	CURTIN	97428	Elaine Kitcher	(503) 942-2013	01-APR-92		
5220	SWR	CURTIN TRUCK STOP	BEAR CREEK ROAD	CURTIN	97428	Robert Newburn	(503) 683-4433	10-FEB-92	14-SEP-92	
4500	SWR	JOHN'S TEXACO	I-5 & BEAR CREEK RD	CURTIN	97428	Marion Smart	(503) 942-1218	30-MAR-92		
9111	SWR	STRONG'S MARKET	11245 TILLER-TRAIL HWY	DAYS CREEK	97429	Larry & Edna Strong	(503) 825-3645	01-APR-92		
9685	WVR	ON THE WAY MARKET & GAS	38299 HWY 58	DEXTER	97431	Norman & Lorraine Liles	(503) 747-8238	10-JAN-92	11-MAY-92	
158	WVR	BUTD'S GROCERY	37635 ROW RIVER ROAD	DORENA	97454	David Boyd	(503) 942-9981	10-JAN-92	18-SEP-92	
190	SUD.	COMPONIE SHELL	107 U D STREET	DUKENA	97434	BOD & FLORA JONES	(503) 946-1567	JU-MAR-92	23-SEP-92	
2511	CLID	THE OLD DIMORD	TUT W. B SINCEI	DDATN	97433	Rill Johnson	(503) 030-2021	10-MAK-92	27-650-02	
1453	SLID		170 N CEDAD	DRAIN	07/35	Ernest D./Barbara S. Wheeler	(503) 836-2101	10_040_02	17_950-02	
9360	SUS	RONIS CHEVRON	17040 HUY 38	FILTON	07/36	David I Compton	(503) 586-2781	27-MAR-02	IT SEF FE	
3094	WVR	FINIRA FAMILY STORE	88773 TERRITORIAL ROAD	FIMIRA	97437	Ronald Huddleston	(503) 935-1917	25-MAR-92	24-SEP-92	
219	UVR	FINIRA STATION	88921 TERRITORIAL ROAD	FIMIRA	97437	Louis E. Brown	(503) 935-2676	16-JAN-92	18-AUG-92	
7933	WVR	JASPER STORE	-36763 JASPER-LOWELL ROAD	FALL CREEK	97438	Calvin M. Snyder	(503) 746-2032	31-MAR-92	25-SEP-92	
8609	WVR	ON THE WAY MARKET & GAS BOYD'S GROCERY ROW RIVER STORE COWBOY'S SHELL THE OLD PUMPER WHEELERS TEXACO RON'S CHEVRON ELMIRA FAMILY STORE ELMIRA STATION JASPER STORE BAY BRIDGE MARINA FLORENCE ARCO GLAUSI OIL COMPANY HOBERG'S CHERVON SERVICE,	1150 BAY STREET	FLORENCE	97439	Hong-Shiou Chiou	(503) 997-2406	27-MAR-92		
6136	WVR	FLORENCE ARCO	514 HWY. 101 SOUTH	FLORENCE	97439	Phil Murray	(503) 588-0455	15-JAN-92	14-AUG-92	
1438	WVR	GLAUSI OIL COMPANY	18TH HWY 101 FLORENCE	FLORENCE	97439	Otto Glausi	(503) 687-1234	19-MAR-92	01-0CT-92	
251	WVR	HOBERG'S CHERVON SERVICE,	345 HWY. 101	FLORENCE	97439	Wanda Hoberg	(503) 997-2413	16-JAN-92	17-SEP-92	
4089	WVR	K-G'S ONE STOP MARKET	85039 HWY. 101 SOUTH	FLORENCE	97439	Keith & Glenda Cummings	(503) 997-3242	24-JAN-92	28-SEP-92	
3643	WVR	MILES OIL CO., INC. 🛬	2175 HWY 101 N.	FLORENCE	97439	Bud and Dorie Miles	(503) 997-3882	30-MAR-92	24-SEP-92	
3379	WVR	SAXON'S TEXACO SERVICE	HWY. 101 & NOPAL	FLORENCE	97439	Darwin E. Saxon	(503) 997-2059	01-APR-92	29-SEP-92	
8124	WVR	STEVE'S TEXACO	813 HIGHWAY 101	FLORENCE	97439	Bud and Dorie Miles	(503) 997-3882	30-MAR-92	24-SEP-92	
667	WVR	TWIN LAKES STORE	88940 HWY 101 N.	FLORENCE	97439	Ralph W. Chastain	(503) 997-3021	31-MAR-92		
/15	WVR	WEST COAST SHELL	1660 10TH ST	FLORENCE	97439	Jim Barnett	(503) 997-2014	01-APR-92		
2/2	SWR	FORTUNE BRANCH MARKET GLENDALE SHELL SERVICE JIM'S CHEVRON QUINES CREEK TEXACO SAM'S DRIVE-IN GLIDE STORE PEEL COUNTRY STORE D & J TEXACO MINI MART FOUR SEASONS RV RESORT HOWARD'S SHELL SERVICE	4411 AZALEA GLEN RD.	GLENDALE	97442	Lisa Spear	(503) 832-2405	12-MAR-92	22-SEP-92	
0021	SMK	GLENDALE SHELL SERVICE	SETHER AVE.	GLENDALE	97442	Hazel E. Whatey	(503) 832-2290	13-JAN-92	21-AUG-92	
570	SLID	DUINES CREEK TEXACO	ATH & PALIFIL		97442	J W Apperson Namel 5 libetov	(202) 022-2290	30-MAK-92	01-0L1-92	
266	SUR	SAM/S DRIVE-IN	305 JUNCTION RD	GLENDALE GLENDALE	91446	Razel C. Whatey	(503) 632-2290	13-JAN-92 25-MAD-02	21-AUG-92 1/_050_02	
9123	SUR	GLIDE STORE	117 BROWN STREET		07442	Orvel & Erma Jennings	(503) 632-2733	30-MAR-02	30-SED-02	
332	SWR	PEEL COUNTRY STORE	6019 LITTLE RIVER RD	GLIDE	97443	Marvin Gibson	(503) 496-3344	25-MAR-92	04-NOV-92	
1034	SWR	D & J TEXACO MINI MART	435 SOUTH ELLENBURG	GOLD BEACH	97444	James H. Turner	(503) 247-7440	13-JAN-92	21-AUG-92	
6514	SWR	FOUR SEASONS RV RESORT	96526 N. BANK ROGUE	GOLD BEACH	97444	Jerry Biewend	(503) 247-4503	01-APR-92	14-MAY-92	
257	SWR	HOWARD'S SHELL SERVICE	1025 SOUTH ELLENSBURG	GOLD BEACH	97444	Howard Hauschildt	(503) 247-6010	24-MAR-92	01-0CT-92	
5149	SWR	NESIKA MARKET	32865 NESIKA ROAD	GOLD BEACH	97444	Maxine Nix	(503) 247-7911	18-FEB-92	23-SEP-92	
7960	SWR	PISTOL RIVER STORE-POST O	PISTOL RIVER LOOP/ P.O. B	PISTOL RIVER	97444	Joyce A. Reller	(503) 247-2735	23-JAN-92	13-MAY-92	
7286	SWR	PORT OF GOLD BEACH-AIRPOR	P.O.BOX 1126	GOLD BEACH	97444	Howard Teague		31-JAN-92	17-SEP-92	
4748	SWR	PORT OF GOLD BEACH-MARINA	OLD ELLENSBURG HWY /P.O.B	GOLD BEACH	97444	Howard Teague			17-SEP-92	
9099	SWR	ROGUE RIVER PARK	95194 N BANK ROGUE ROAD	GOLD BEACH	97444	Patrick \$ Perkins	(503) 247-7518	01-APR-92	01-OCT-92	
4013	SWR	TEXACO SERVICE STATION #8	505 S. ELLENSBURG	GOLD BEACH	97444	Ron La Franchi	(503) 396-5571	10-FEB-92	04 cor 00	
932	SWR	UNOCAL 2772	129 N. ELLENSBURG AVE.	GOLD BEACH	97444	Everett Amos	(503) 247-7525	16-MAR-92	01-001-92	
9943	WVR	CENEX SUIL SERVICE CENTER	DOU LASALLE SIREET	HARKISBURG	91446	Dwight Forgey	(505) 688-8210	23-MAR-92		
2041	WVK	NIZER & SUN, INC.	24400 KUWLAND KD.	NARKISBURG	71440	Alvin A Stude	(202) 4/2-4919	UT-JAN-YZ	17-050-03	
4/19		3VIL.2 LEXAPO	173 200111 SKD 21KEE1	NAKKISBUKG	71440	ALVIS A. SLUCK	(JUD) YYJ-0014 (503) 340-5140	07-MAK-92	11-3EP-92	
2740		WINDINGHAM MODGAN CUEVDON	2000 NUKIN UKUKUKU. 300 N THIDA CT	UADDICDUDC	71440	JULY DILSLUW Dilly E Morgon	(503) 042-0109 (503) 005-6007	21- 1AN-92	05-1114-02	13-MAP-92
12340	SUP	IDIEVID TRADING POST	23873 N HMPOHA HUY	ThIFYIN DADY	97440	Reine II K. Owens Bill Johnson Ernest D./Barbara S. Wheeler David L. Compton Ronald Huddleston Louis E. Brown Calvin M. Snyder Hong-Shiou Chiou Phil Murray Otto Glausi Wanda Hoberg Keith & Glenda Cummings Bud and Dorie Miles Darwin E. Saxon Bud and Dorie Miles Ralph W. Chastain Jim Barnett Lisa Spear Hazel E. Whaley J W Apperson Hazel E. Whaley Dorothy Ash Orvel & Erma Jennings Marvin Gibson James H. Turner Jerry Biewend Howard Hauschildt Maxine Nix Joyce A. Reller Howard Teague Howard H	(503) 496-3404	19-MAR-02	10-JUN-92	IJ PAR 72
203	SUR	LEMOLO LAKE RESORT INC	HC 60 P.O.BOX 798	TOIEVID PAPY	97447	D C Banfield	(503) 496-0900	04-MAR-92	04-SEP-92	
-/-	- /***	second and a covery allos			21.141		(200) 170 0,00			

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Statewide Summary Report - Zip Code Order

FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT Kathy Kling Frank Knox Larry Brown Richard Wright Gary Mathews Dale Andert Thomas D. Barrett Ronald Breaker Brad Onstott John Daubert Stanley J. Russell John & Georgia Van Wormer James M. Edwards James L. Kelley Madelyn L. Porter Richard Mikesell Sidney & Patricia Schrage Raymond Wolf Anita P. Senter Richard Mikesell Terry & Kathy Koroush Mike Moran John Shirtcliff John Shirtcliff John Shirtcliff Debbie & Douglas Neves Judy Silvers Wayne Hodge Charles J. LaFranchi Ron La Franchi Walter E Barklow John Phimister Donald H. Hartvig Jack W. Stevens David & Jane Cardwell Ron La Franchi Harry C. Davis Virgil Schmidt Hal K. Graham Harry C. Davis William R Hastings Pedro Max Vasquez Harold W. & Mary F. Christians Holland Hutchings Jeff Newell Doris Baughman Mike Moran Donald Ratliff	PHONE		LOI	CA	APP
2751	WVR	CONSER QUARRY	27228 FERGUSON RD.	JUNCTION CIT	97448	Kathy Kling	(503)	998-6493	01-APR-92		
4046	₩VR	GIBSON MOTOR CO.	333 IVY ST.	JUNCTION CIT	97448	Frank Knox	(503)	998-2346	14-JAN-92		
7127	WVR	JERRY BROWN CO., INC.	93244 HWY. 99 S. \P.O. BO	JUNCTION CIT	97448	Larry Brown	(503)	998-2300	21-JAN-92	01-0CT-92	
4362	WVR	PANOCO, INC	811 ELM	JUNCTION CIT	97448	Richard Wright	(503)	286-9621		07-AUG-92	
10528	WVR	RIVERVIEW STORE	92573 RIVER ROAD	JUNCTION CIT	97448	Gary Mathews	(503)	998-6711	09-MAR-92		
8137	WVR	TEXACO STATION	825 IVY STREET	JUNCTION CIT	97448	Dale Andert	(503)	225-4257	09-MAR-92		
255	SWR	BARRETT CONST. & MARINA	655 SUNLAKE DR.	LAKESIDE	97449	Thomas D. Barrett	(503)	759-3728	25-MAR-92		
5614	SWR	LAKESIDE MARINA	P.O.BOX F - 8TH ST.	LAKESIDE	97449	Ronald Breaker	(503)	759-3312	27-JAN-92	01-SEP-92	
10273	SWR	LAKESIDE STATION	100 S. 8TH	LAKESIDE	97449	Brad Onstott	(310)	823-5464	18-FEB-92		
10560	SWR	NORTH LAKE - RESORT & MAR	ZUYU NORTH LAKE AVE	LAKESIDE	97449	John Daubert	(503)	759-3515	01-APR-92		
1219	SWK	TEN MILE MAKINA, ING.	/IH & PARK SI. (P.U.BUX 2	LAKESIDE	97449	Stanley J. Russell	(503)	759-5164	10-JAN-92	18-AUG-92	
0007	SMK	VANWORMER SERVICE (UNUCAL	94244 KERBER SIKEEI	LANGLOIS	97450	John & Georgia Van Wormer	(505)	348-2431	10-JAN-92	09-SEP-92	2/ 250 02
7007	WVK	LORANE FAMILI SIOKE	BUSUI IERKIIUKIAL	LORANE	97451	James M. Edwards	15075	075 7000	30-MAR-92	01-0CT-92	24-SEP-92
2233	WVR.	LOUGH UNION REDVICE	117 E NAIN OT	LORANE	97421	James L. Kettey	(503)	933-3009	23-MAR-92	40.000.00	
7700	LU/D	NADIETON PD			77474	Nichand Mikegold	(505)	937-2342 030 770E	12"JAN-92	10-3EP-92	
0768	UT/D	MADCOLA KITCHEN N CAS		MARCOLA	97422	Richard Mikesell Sidnov & Dotnicia Schnogo	(503)	920-3303	23-JAN-92	07-AUG-92	
3845		LORO GAS EXYON	35803 HUY 58	DIFACANT HIL	07/55	Paymond Half	(503)	700-2410	11-WAD-02	30-3EF-72	
243		RELIEOUNTAIN MARKET	26720 BELLEOUNTAIN PD	MONROF	07/56	Anita P. Senter	(5057	/2/-3/11	20-MAD-02	2J-3EF-92 21_SED_02	
4357		KEYLOCK	525 MAIN ST	MONDOE	07/.56	Richard Mikecell	(503)	424-3011	20-MAR-92	07-AUC-02	
10353		TERRY'S REPAIR & GAS	STH MATN HUY OO U	MONROE	07/56	Terry & Kathy Korouch	(503)	8/7-5550	15 - IAN-02	28-SED-02	
3578	SWR	BI-MOR STATIONS, #15	1123 N.W. PACIFIC HWY.	MYRTIE CREEK	97457	Mike Moran	(503)	772-2053	22- JAN-92	17-SEP-92	
284	SWR	FREEWAY TEXACO	I-5 EXIT 103	MYRTLE CREEK	97457	John Shirtcliff	(503)	863-3521	16-MAR-92	01-JUN-92	
8871	SWR	JIM'S MUFFLER	729 S. MAIN STREET	MYRTLE CREEK	97457	Jimmie Johnson	(503)	863-5411	08-JAN-92	28-SEP-92	
6746	SWR	MYRTLE CREEK GARAGE	3RD & MAIN	MYRTLE CREEK	97457	John Shirtcliff	(503)	863-3521	16-JAN-92	01-JUN-92	
1452	SWR	PENNY PINCHER #1	548 S. MAIN	MYRTLE CREEK	97457	John Shirtcliff	(503)	863-3521	16-JAN-92	01-JUN-92	
326	SWR	RIDDLE TEXACO	145 N. 5TH AVE.	MYRTLE CREEK	97457	John Shirtcliff	(503)	863-3521	16-JAN-92	01-JUN-92	
5242	S₩R	DORA STORE	ON COOS BAY WAGON RD./HC	MYRTLE POINT	97458	Debbie & Douglas Neves	(503)	572-3385	08-JAN-92	31-AUG-92	
3629	SWR	HATFIELD, DAVID E	H.C.85, BOX 115B	MYRTLE POINT	97458	Judy Silvers	(503)	572-5208	30-MAR-92		
_620	SWR	HODGE DISTRIBUTOR, INC	1893 ROSEBURG RD./P.O. BO	MYRTLE POINT	97458	Wayne Hodge	(503)	572-2926	23-MAR-92	01-0CT-92	
3329	SWR	KEY LOCK	800 HARRIS	MYRTLE POINT	97458	Charles J. LaFranchi	(503)	572-5313	23-MAR-92		
4005	SWR	RON'S OIL CO STATION #5	734 SPRUCE ST.	MYRTLE POINT	97458	Ron La Franchi	(503)	396-5571	10-FE8-92		
9299	SWR	WALT'S SHELL STATION	710 8TH STREET	MYTRLE POINT	97458	Walter E Barklow	(503)	572-5817	18-MAR-92	01-0CT-92	
6256	SWR	ASTRO #212	1180 N. VIRGINIA	NORTH BEND	97459	John Phimister	(503)	243-7899	09-JAN-92	21-SEP-92	
0129	SWR	FRANKU #24	1625 SHERMAN	NORTH BEND	97459	Donald H. Hartvig	(503)	295-2668	01-APR-92		
9899	SWK	BLASGOW GROUERT	220 EAST BAY DRIVE	NORTH BEND	97459	Jack W. Stevens	(503)	756-3301	01-APR~92	01-0CT-92	
240	SMC	ROUSER STORE	X550 TREMONT OT	NUKIA BENU	97429	David & Jane Cardwell	(505)	706 5571	10-JAN-92	18-AUG-92	
7544	SUD	SHEDWAN AVENUE TEYACO	1700 SHEDWAN	NORTH BEND	07/50		(503)	390-3371	10-FEB-92	20-050-02	
0935	CLID	TIDEE ACRES	10060 BUY 101	NORTH BEND	07/50	Virgil Schmidt	(503)	750-7420	ZJ-MAR-72	29-3EF-92 01_0CT_02	
5570	CHD	VILLACE ADCO	1805 VIDCINIA	NONTH BEND	07/50	Vilgit Schmitte	(503)	754-4041	30-MAR-92	01-001-92	
140	SUD	VILLAGE TEYACO	1300 VIRGINIA AVE	NORTH BEND	07/50	Harry C. Davie	(503)	756-3/26	27-JAN 72	20_SED_02	
5272	CLID	WACON UNEEL OBOCERY	5852 UTLDUOOD DD	NORTH BEND	07/50	Hilling P. Hostings	(503)	750-3/00	20-WAD-02	29-SEP 72	
7/53	LAVD		22522 WILV 126	NOTI	07/41	Redna Max Vacquar	(503)	075-19//	20-MAR-72	20-36F-92	
24J2 471		SARREN'S TEXACO	22528 HUV 126		07/61	Harold U. & Mary F. Christians	(101)	933-1244	01-APK-92	21_CED=02	
457	SUP	HOLLAND'S AUTO SERVICE	P.O.BOX 696	ΠΑΚΙΔΝΠ	97662	Holland Hutchinge	(503)	450-3712	23-MAP-02	21-559-02	
9361	SWR	RICE HILL BP	614 JOHN LONG ROAD	OAKLAND	97462	Jeff Newell	(503)	849-2154	01-APR-92	01-SEP-92	
9100	SWR	TEXACO STATION	RICE HILL INTERCHANGE	OAKLAND	97462	Dorís Baughman	(503)	459-5049	01-APR-92		
3593	WVR	BI-MOR STATIONS. #17	47686 HWY. 58	OAKRIDGE	97463	Mike Moran	(503)	772-2053	22-JAN-92	17-SEP-92	
1445	WVR	RICE HILL BP TEXACO STATION BI-MOR STATIONS, #17 DON'S TRUCK SERVICE	P.O. BOX 732-48080 HWY 58	OAKRIDGE	97463	Holland Hutchings Jeff Newell Doris Baughman Mike Moran Donald Ratliff	(503)	782-2630	23-JAN-92	11-SEP-92	
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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT John & Dorothy J. Gombert & He Wayne Hodge Charles Landis H.L. Montgomery Sr. Gayle Paige Janice A. Piper Scott Pedd David Dudley Wayne Hodge Jay B. Allred Hugh Clardy Jr. Maurie Bassett James L. Brown Dan Cumberland James L. Brown Robert L. Migas	PHONE	LOI	CA	APP
299	WVR	HEDEGAARD, JOHN GOMBERT &	47609 HIGHWAY 58	OAKRIDGE	97463	John & Dorothy J. Gombert & He	(503) 782-3464	12-MAR-92	21-SEP-92	
8130	SWR	HODGE DIST., INC.	15TH ST.	PORT ORFORD	97465	Wayne Hodge	(503) 572-2926	23-MAR-92	01-0CT-92	
2819	SWR	HUMBUG MOUNTAIN LODGE	39292 HWY 101	PORT ORFORD	97465	Charles Landis	(503) 332-1021	01-APR-92		
342	swr	MONTY'S TOWING SERVICE	1536 NO. OREGON ST.	PORT ORFORD	97465	H.L. Montgomery Sr.	(503) 332-7676	09-JAN-92	18-AUG-92	10-NOV-92
5213	SWR	PORT OF PORT ORFORD	300 DOCK DRIVE	PORT ORFORD	97465	Gayle Paige	(503) 332-7121	13-JAN-92	22-MAY-92	
10587	SWR	SILVER SPRINGS MOBILE PAR	42764 PORT ORFORD LOOP	PORT ORFORD	97465	Janice A. Piper	(503) 396-2462	01-APR-92	10-SEP-92	
6/18	SWR	WINTERS MOBIL SERVICE	1137 OREGON STREET	PORT ORFORD	97465	Scott Pedd	(503) 479-5343	23-JAN-92	28-SEP-92	
1587	SWR	ABBOIL'S MARKEL	209 POPLAR ST.	POWERS	97466	David Dudley	(503) 439-4445	01-APR-92	01 007 00	
2047	SWK	HOUGE DISIKIBUTUK INC		POWERS	97400	Wayne Hodge	(203) 272-2920 (507) 220-2991	23~MAK*92 15_34N-02	10-10-02	
2063	SML	101 SERVICE	ORS HICHWAY AVE	POWERS	07/67	Buch Clardy In	(503) 439-2001	23-JAN-92	17-AUG-72 01-001-02	
9415	SUR	BASSETT-HYLAND ENERGY CO	HUY 101 & 14TH STREET	REEDSPORT	97467	Maurie Bassett	(503) 267-2107	10-JAN-92	22-0CT-92	
2833	SWR	BROWN, JAMES L.	9011 LOON LAKE ROAD	REEDSPORT	97467	James L. Brown	(503) 599-2244	25-MAR-92	01-OCT-92	
10885	SWR	CUMBERLAND DISTRIBUTING.	229 PORT DOCK ROAD	REEDSPORT	97467	Dan Cumberland	(503) 271-2411	24-JAN-92	30-SEP-92	
2835	SWR	LOON LAKE LODGE RESORT #2	ROUTE 4. BOX 60	REEDSPORT	97467	James L. Brown	(503) 599-2244	25-MAR-92		
9189	SWR	CUMBERLAND DISTRIBUTING, LOON LAKE LODGE RESORT #2 MIGAS AUTOMOTIVE SERVICE _	1199 HWY AVENUE	REEDSPORT	97467	Robert L. Migas	(503) 271-3530	28-JAN-92	01-0CT-92	
		ONE STOP MARKET	1625 HWY 101	REEDSPORT	97467		(503) 997-2548			
560	SWR	REEDSPORT MOBIL	1625 HWY 101 532 FIR AVENUE	REEDSPORT	97467	Charles R. Mast	(503) 756-1976	23-JAN-92		
8125	SWR	REEDSPORT TEXACO	2118 HIGHWAY 101	REEDSPORT	97467	Bud and Dorie Miles	(503) 997-3882	30-MAR-92	24-SEP-92	
8586	SWR	RONS OIL CO., #6	1070 HWY 101	REEDSPORT	97467	Ron La Franchi		10-FEB-92		
		SMITH RIVER STORE	532 FIR AVENUE 2118 HIGHWAY 101 1070 HWY 101 16334 LOWER SMITH RIVER R	REEDSPORT	97467	Robert Wade	(503) 271-5219			
		WINDY BAY FUEL	164 BAY FRONT LOOP	HINGHEOTEN D	71401	didy horson .	(503) 271-5414			
		REMOTE STORE/POST OFFICE		REMOTE	97468	Oley Nelson Maude Masters	(503) 572-5638	30-MAR-92		
		JACK'S UNION 76	1ST & MAIN	RIDDLE	97469	Jack R. Puz		24-JAN-92	22-MAY-92	
		ASTRO #223	1320 N. HARVARD	ROSEBURG	97470	Maude Masters Jack R. Puz John Phimister Maurie Bassett E. D. Dirksen Eugene W. Parr Scott Pedd Scott Pedd Don Tanferani Milton L. Bartholomew Jr. Eloyd M. Poland	(503) 243-7899	09-JAN-92	21-SEP-92	
		BASSETT-HYLAND ENERGY CO.		ROSEBURG	97470	Maurie Bassett	(503) 267-2107	19-MAR-92	21-SEP-92	
		BP SERVICE STATION CHILDERS & PARR	1847 DIAMOND LAKE BLVD. 2530 N.E. STEPHENS	ROSEBURG	97470	E. D. Dirksen	(202) 672-1666	UI-APK-92	01-001-92 29-ccb-02	
		CHILDERS & PARR COLVIN OIL CO., ROSEBURG	ZJJU N.E. STEFTENS 3/4 CADDEN VALLEY DOAD	ROSEBURG	97470	Scott Bodd	(503) 072-0921	23-14N-02	20-327-92	
6628	SWR	COLVIN OIL CO., ROSEBURG	368 GARDEN VALLEY	ROSEBURG	97470	Scott Pedd	(503) 479-5343	23-JAN-92	28-SEP-92	
		DIXONVILLE STORE	2046 BUCKHORN ROAD	ROSEBURG	97470	Don Tanferani	(2027 417 2040	23-MAR-92	24-AUG-92	
		DOUGLAS COUNTY FARMERS CO		ROSEBURG	97470	Milton L. Bartholomew Jr.	(503) 673-0601	20-MAR-92		
		FAST STOP MARKET	4446 OLD HWY 99 SO.	ROSEBURG	97470	Floyd M. Poland	(503) 672-2610	23-MAR-92	04-JUN-92	
		FRANKO #26	1053 S.E. STEPHENS	ROSEBURG	97470	Donald H. Hartvig	(503) 295-2668	01-APR-92		
		HARRINGTON PETROLEUM INC		ROSEBURG	97470	R. A. Harrington	(503) 673-3533	21-FEB-92	04-JUN-92	
		HARRINGTON PETROLEUM, INC		ROSEBURG	97470	Floyd M. Poland Donald H. Hartvig R. A. Harrington R. A. Harrington B. G. Henderson Charles A. Bass Charles B. McCullum John R. Atkinson	(503) 673-3533	21-FEB-92	04-JUN-92	
		HENDERSON MOBIL		ROSEBURG	97470	B. G. Henderson	(503) 672-9983	27-JAN-92	25-SEP-92	
		JIM'S WINCHESTER GAS & AU		ROSEBURG	97470	Charles A. Bass	(503) 672-2544	30-MAR-92	A9 88 A3	
		MCCULLUM'S TEXACO SERVICE		ROSEBURG	97470	Lharles B. McCullum	(202) 0/2~4044 /E07) 472 0//E	10-FEB-92	10-NAX-02	
		MELROSE COUNTRY STORE		ROSEBURG	97470	John K. Alkinson Daiou & Duana Madarhaad	(503) 673-8625	11-MAD-02	19-MAI-92 25.ccp.02	
220	CID	OK'S AUTO SUPPLY, INC.	8274 OLD HIGHWAY 99 NORTH			Den Christner	(503) 672-5848			
		•	1082 N. E. STEPHENS 850 N.W. GARDEN VALLEY BL	RUSEDURG	07/70	Don Christner		06-FEB-92		
		PANOCO PANOCO, INC #16	702 CARDEN VALLEY DOAD	RUSEDUKG	07/70	Richard Wright	(503) 286-9621	06-FEB-92		
		PANOCO, INC #17	792 GARDEN VALLEY ROAD 345 W. HARVARD 1800 GARDEN VALLEY BLVD. 2625 N.E. DIAMOND LAKE BL	ROSEBURG	97670		(503) 286-9621	06-FEB-92		
		RIDGEWAY MARKET	1800 GARDEN VALLEY RIVD	ROSEBURG	97470	Rick Williams	(503) 672-5824			
		ROSEBURG SHELL CENTER	2625 N.E. DIAMOND LAKE BL	ROSEBURG	97470	John Shirtcliff	(503) 863-3521			
		T MART	1515 W HARVARD	ROSEBURG	97470	Jerry L Tabor	(503) 673-8022			
		TEXACO SERVICE STATION		ROSEBURG	97470	Dale Andert	(503) 225-4257			
			14188 NORTH UMPQUA HIGHWA	ROSEBURG	97470	David B. Magers	(503) 673-7640		01-0CT-92	

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Statewide Summary Report - Zip Code Order

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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT		DNE	LOI	CA	APP
446	WVR	5TH & Q EXXON	1795 N. 5TH	SPRINGFIELD	97477	Robert Newburn David Coplin Donald H. Hartvig Robert Newburn Raymond Gough John Henry Morales Richard Wright ROB FOREST Phil Murray Donald H. Hartvig Dale Andert Dale Andert Lucile Peterson John R. Lindamood	(5)	03) 683-4433	10-FEB-92	14-SEP-92	••••
			28TH & CENTENNIAL	SPRINGFIELD	97477	David Coplin	(5)	03) 688-0971	25-MAR-92		
		FRANKO #41	1240 RAINBOW AVE.	SPRINGFIELD	97477	Donald H. Hartvig	(5)	3) 295-2668	01-APR-92		
		GATEWAY EXXON	3520 GATEWAY	SPRINGFIELD	97477	Robert Newburn	(5)	03) 683-4433	10-FEB-92	14-SEP-92	
		J & R SERVICE CENTERS, IN	525 W. HARLOW RD.	SPRINGFIELD	97477	Raymond Gough	(5)	3) 726-5158	15-JAN-92	01-0CT-92	
1283	WVR	K MART #(7153)	1401 N. 21ST	SPRINGFIELD	97477	John Henry Morales	(5)	3) 726-6671	01-APR-92		
		PANOCO, INC	3484 GATEWAY	SPRINGFIELD	97477	Richard Wright	(5)	3) 286-9621	06-FEB-92	06-AUG-92	
		PETRO/SPRINGFIELD CARDLOC	4124 MAIN ST.	SPRINGFIELD	97477	ROB FOREST	(5)	3) 682-3865	15-JAN-92	03-AUG-92	
6437	WVR	PLEASANT HILL TEXACO	35310 HWY. 58	SPRINGFIELD	97477	Phil Murray	x -	· · · · · · · · · · · · · · · · · · ·	15-JAN-92	03-AUG-92	
		SPRINGFIELD ARCO	3650 EAST MAIN	SPRINGFIELD	97477	Donald H. Hartvig	(5)	3) 295-2668	01-APR-92		
		TEXACO SERVICE STATION	1376 MOHAWK BLVD.	SPRINGFIELD	97477	Dale Andert	(5)	3) 225-4257	09-MAR-92		
		TEXACO STATION	2303 OLYMPIC	SPRINGFIELD	97477	Dale Andert	(5)	3 225-4257	09-MAR-92		
7159	WVR	CAMP CREEK STORE	37-540 CAMP CREEK RD.	SPRINGFIELD	97478	Lucile Peterson	(50	3 461-4691	24-MAR-92		
		JOHNS GAS & GROCERIES	5390 MAIN STREET	SPRINGFIELD	97478	John R. Lindamood	(50	3) 726-0107	12-MAR-92	30-SEP-92	30-SEP-92
		LEONARD D. WING JR.	38477 MCKENZIE HWY.	SPRINGFIELD	97478	John R. Lindamood L. David Wing	(50	3) 726-8570	01-APR-92		
			5737 MAIN STREET	SPRINGFIELD	97478	Dale Andert	(50	3) 225-4257	09-MAR-92		
		BARNES FUEL OIL SERVICE		SUTHERLIN	97479	Don Ralls	(5)	9 459-2255	30-JAN-92		
		FAST GAS & MINI MARKET	865 W. CENTRAL SUTHERLIN	SUTHERLIN	97479	John R. Lindamood L. David Wing Dale Andert Don Ralls Leo W. Sanders Donald H. Hartvig Charles A. Rancour Richard Wright Mikles Smalley Pauline E. Kelly Miklard Lemon Thomas L. Cook Joyce Henry-MacKay Fred W. Jack Dale Andert Pedro Max Vasquez James Carney Gary R. Gilmore Wayne Gardner Jason Powell John Phimister R. A. Harrington C.H. Seagraves Jr. Ron La Franchi Leo W. Sanders Robert R. Jensen Betty Gaustad Bud and Dorie Miles Claudia C. & John T. Lake: Pursell Henwood	(5)	3) 459-4255	13-JAN-92	21-SEP-92	
		FRANKO #40	411 FRONTAGE ROAD	SUTHERLIN	97479	Donald H. Hartvig	(5)	3) 295-2668	01-APR-92		
		NONPARIEL STORE		SUTHERLIN	97479	Charles A. Rancour	(5)	3) 459-2558	10-JAN-92	30-SEP-92	
		PANOCO SUTHERLIN #15	133 WESTWOOD	SUTHERLIN	97479	Richard Wright	(5)	3 286-9621	06-FF8-92	06-AUG-92	
		SMALLEY DIESEL CENTER	1625 W. DUKE RD.	SUTHERLIN	97479	Mike Smalley	(5)	13) 459-4838	31-MAR-92	28-SEP-92	
285	WVR		13298 HWY. 36	SWISSHOME	97480	Pauline E. Kelly	(50	3) 268-4815	30-MAR-92	21-SEP-92	
		C & M MARKET	116 HAVEN LANE	TENMILE	97481	Millard Lemon	(5)	3) 679-8873	15-JAN-92	18-AUG-92	
		TJ & M INC.	9587 HWY 42	TENMILE	97481	Thomas L. Cook	(5)	3) 679-8655	27-JAN-92	08-SEP-92	
		UMPQUA STORE	6461 FORT MCKAY ROAD	SUTHERLIN	97486	Jovce Henry-MacKay	(5)	3) 567-3319	21-JAN-92		
		CROW MERCANTILE CO.	86035 TERRITORIAL RD.	VENETA	97487	Fred W. Jack	(5)	3) 935-2848	18-FEB-92	05-AUG-92	
		TEXACO STATION	25547 HWY. 126	VENETA	97487	Dale Andert	(5)	3) 225-4257	09-MAR-92		
4334	WVR	VENETA AUTO SERVICE	88105 TERRITORIAL ROAD	VENETA	97487	Pedro Max Vasquez	(5)	3) 935-1244	23-MAR-92	01-001-92	
		NIMROD SERVICE	49195 MCKENZIE HWY.	VIDA	97488	James Carney	(5)	3) 822-3500	01-APR-92	17-SEP-92	
5857	WVR	VIDA COMMUNITY MARKET	45602 MCKENZIE HIGHWAY	VIDA	97488	Gary R. Gilmore	(5)	3) 896-3261	24-MAR-92	25-SEP-92	
			42840 MCKENZIE HIGHWAY	LEABURG	97489	Wayne Gardner	(5)	3) 896-3215	20-MAR-92	10-SEP-92	
		OAKRIDGE EXXON	47762 HWY 58	OAKRIDGE, OR	97492	Jason Powell	(5)	3) 289-5558	28-FEB-92	16-SEP-92	
		ASTRO #234	401 E. MAIN ST.	WINSTON	97496	John Phimister	(50	3) 243-7899	09-JAN-92	21-SEP-92	
				WINSTON	97496	R. A. Harrington	(50	3) 673-3533	21-FEB-92	04-JUN-92	
675	SWR	ROD'S GROCERY STORE	501 N.W. HWY 42	WINSTON	97496	C.H. Seagraves Jr.	(50	3) 476-6627	23-MAR-92		
8108	SWR	HARRINGTON PETROLEUM, INC ROD'S GROCERY STORE RON'S OIL #7 WINSTON EXXON A BITE OF WYOMING COVERED BRIDGE BP YACHATS TEXACO	50 N.W. MAIN	WINSTON	97496	Ron La Franchi	(50	3) 396-5571	10-FEB-92		
364	SWR	WINSTON EXXON	371 S. MAIN	WINSTON	97496	Leo W. Sanders	(5)	3) 459-4255	21-JAN-92	18-SEP-92	
9724	SWR	A BITE OF WYOMING	221 OLD HWY 99	WOLF CREEK	97497	Robert R. Jensen	(5	3) 866-2422	01-APR-92	01-ocT-92	
10647	S₩R	COVERED BRIDGE BP	241 SUNNY VALLEY LOOP	SUNNY VALLEY	97497	Betty Gaustad	(5)	3) 476-8942	30-MAR-92	23-SEP-92	
8126	WVR	YACHATS TEXACO	101 & 9TH STREET	YACHATS	97498	Bud and Dorie Miles	(5)	3) 997-3882	30-MAR-92	24-SEP-92	
8423	SUR	JOHN T. LAKES FULL SERVIC	2560 EAGLE VALLEY RD	YONCALLA	97499	Claudia C. & John T. Lake	s (5)	3) 849-2234	30-MAR-92	30-SEP-92	
		RICE HILL TOWING	201 FRONT ST.	YONCALLA	97499	Russell Heawood	•-	•	11-FEB-92	09-JUN-92	
0101	SUR	RICE HILL TRUCK PLAZA	I-5 AND EXIT 148	YONCALLA	97499	Ellis Emory	(5)	3) 849-2133	10-JAN-92	15-MAY-92	
		WEBB, D M	EASTSIDE I-5 EXIT 148 RI	YONCALLA	97499	Daniel M. Webb	(50	3) 849-2674	31-MAR-92		
		AL'S MOBILE	1085 STEWART AVENUE	MEDFORD	97501	Douglas L. Pickell	(5)	3 779-7901	31-JAN-92	04-SEP-92	
		ASSURANCE TRANSPORTATION,		MEDFORD	97501	Jeremy P. Guiliano	250	3) 772-6181	31-JAN-92	08-SEP-92	
			1006 S. RIVERSIDE	MEDFORD	07501	John Phimister	750	31 243-7800	09-JAN-02	21-SEP-92	
		ASTRO #211	525 N. CENTRAL	MEDFORD	97501	John Phimister	(5)	3) 243-7800	09-JAN-02	21-SEP-92	
		ASTRO #250	2260 W. MAIN	MEDFORD	97501	John Phimister	(5)	3) 243-7899	09-JAN-92	21-SEP-92	
0172	A MIV	Notice allow				Claudia C. & John T. Lake Russell Hegwood Ellis Emory Daniel M. Webb Douglas L. Pickell Jeremy P. Guiliano John Phimister John Phimister John Phimister		_,,	57 574 72	/ _	

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Statewide Summary Report - Zip Code Order

222 S.R. KAMELT TIGER MART #5387 951 E. LARDETT MEDICAD 97501 Hike Markins (53) 772-5275 64-Marc -0 01-011-02 3451 SUBE LI-MOR STATIONS, INC. #A 4599 CARTER LAKE INT. MEDICAD 97501 Hike Moran (53) 772-2353 22-JAH-22 17-SEP-92 3461 SUBE LI-MOR STATIONS, INC. #A 4599 CARTER LAKE INT. MEDICAD 97501 Hike Moran (53) 772-2353 22-JAH-22 17-SEP-92 3461 SUBE LI-MOR STATIONS, INC. #A 4590 CARTER LAKE INT. MEDICAD 97501 Hike Moran (53) 772-7331 0-JAH-22 30-SEP-92 3463 SUBE CULVIE OLI CO. 280 SUTH STAGE ROAD MEDICAD 97501 Mike Moran (53) 772-7333 25-JAH-22 22-SEP-92 4653 SUR CULVIE OLI CO. 20 SUTH STAGE ROAD MEDICAD 97501 Soctt Pedd (53) 772-7333 25-JAH-22 28-SEP-92 4803 SUB CULVIE OLI CO. 20 SUTH STAGE ROAD MEDICAD 97501 Soctt Pedd (53) 772-7333 25-JAH-22 28-SEP-92 480 SUB MIKE AN STAL MEDICAD 7750 Soctt Pedd (53) 772-7333 25-JAH-22 28-SEP-92 480 SUB MICAL MIKE AN STAL MEDICAD 7750 S	FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT	• '	PHONE		LOI	CA	APP
3431 SWR 81-MOR STATIONS, INC. # 490 2002 ALCES AVEL 1200 BWR 81-MOR STATIONS, INC. # 490 2002 ALCES AVEL 220-AM-22 772-2053 22-AM-22 772-724	2421	SWR	BARNETT TIGER MART #6387	951 E. BARNETT	MEDFORD	97501	Mike Hawkins		(503) 772-	-5275	16-MAR-92	01-007-92	*******
3400 SuR B1-M08 SINTEINS, INC. #4 499° CRATE LAKE INT. HEDFORD 97501 Mike Moran (503) 772-2035 22-JAN-92 (7-5EP-92 3401 SuR B1LL TERPENTNG, INC. *6 30 CD, MAILTIC NICHAR HEDFORD 97501 Bill Terpenting (503) 772-2035 22-JAN-92 (7-5EP-92 3401 SUR B1LL TERPENTNG, INC. *6 30 SULT PACIFIC NUM HEDFORD 97501 Bill Terpenting (503) 772-2035 22-JAN-92 (7-5EP-92 3405 SUR COLVIN OIL CD. 28 SOUTH STAGE ROAD HEDFORD 97501 Sect Fedd (503) 479-533 (2-JAN-92 (2-5EP-92 2665 SUR COLVIN OIL CD., NED 78 753 STEMAR 1 XAVE HEDFORD 97501 Sect Fedd (503) 479-533 (2-JAN-92 (2-5EP-92 2666 SUR COLVIN OIL CD., NED 78 757 STEMAR 1 XAVE HEDFORD 97501 Sect Fedd (503) 479-533 (2-JAN-92 (2-5EP-92 2666 SUR COLVIN OIL CD., NED 787 757 FERSTANA ND HEDFORD 97501 Sect Fedd (503) 772-7910 15-24A-92 (2-5EP-92 2666 SUR COLVIN OIL CD., NED 787 757 FERSTANA ND HEDFORD 97501 Kare Morris (503) 772-7910 15-24A-92 (2-5EP-92 2665 SUR COLVIN OIL CD., NEDCREW # 1325 COURT ST. HEDFORD 97501 Kare Morris (503) 772-7910 15-24A-92 (2-5EP-92 2665 SUR COLVIN OIL CD., NEDCREW # 1500 ST. HEDFORD 97501 Kare Morris (503) 772-7910 15-24A-92 (2-5EP-92 2675 SUR COLVER STAND 1001 CR TREAL LAKE MAYE HEDFORD 97501							Mike Moran						
34.7 SWR B1-K0R STATIONS, INC., 46 600 E, MAIN ST. KEDFORD 97501 Mike Morea (503) 772-2033 22-ABP-92 17-5EP-92 10051 SWR BULL TERPENING, INC., 36 500 M RACLEFIC HIGHWAY KEDFORD 97501 Linds BOYLand (503) 772-2103 22-ABP-92 2073 SWR BUTLA, MILLIA SZE SULL PARFILLA SZE SULL PARFILLA (503) 772-2103 22-ABP-92 2081 SWR DOLLA, MILL SZE SULL PARFILLA MEDFORD 97501 Linds BOYLand (503) 772-3731 23-ABP-92 2081 SWR DOLLIO, MED & FINE CENTRAL POIN 97501 Sect Fedd (503) 479-5333 23-ABP-92 22-SEP-92 2040 SWR DOLLIO, MED & FINE CENTRAL NARE INAC MINE MEDFORD 97501 Sect Fedd (503) 479-5334 23-ABP-92 23-SEP-92 2061 SWR COLVIN DIL CO., MED XMP ZIALAKE INAY MEDFORD 97501 Karen Morria (503) 772-7911 16-EBP-92 2061 SWR COLVIN DIL CO., MED XMP ZIALAKE INAY MEDFORD 97501 Karen Morria (503) 772-7971 23-ABP-92 23-SEP-92 2061 SWR COLVIN DIL CO., MED XMP ZIALAKE INAY MEDFORD 97501 Karen Morria (503) 772-7971 23-ABP-92 23-SEP-92 2063 SWR COLVIN DIL CO., MED XMP ZIALAKE INAY MEDFORD 97501 Karen Morria (503) 772-7771 23-MAP-22													
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26	3417	SWR	BI-MOR STATIONS, INC. #6	600 E. MAIN ST.	MEDFORD	97501	Mike Moran	· · .					
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				3680 N PACIFIC HIGHWAY	MEDFORD	97501	Bill Terpening				09-JAN-92	30-SEP-92	
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				3628 SOUTH PACIFIC HWY	MEDFORD	97501	Linda Boylan		(503) 776-	-1221	20-MAR-92		
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				1510 E. PINE	CENTRAL POIN	97501	Roderick A. Bell						
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				20 SOUTH STAGE ROAD	MEDFORD	97501	Scott Pedd						
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26	8819	SWR	COLVIN OIL CO., MED #3	785 STEWART AVENUE	MEDFORD	97501	Scott Pedd						
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				1325 COURT ST.	MEDFORD	97501	Scott Pedd					28-SEP-92	
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				2797 MERKIMAN KU 1001 CDATED LAKE UUV	MEDIFURU	97501	Karen Morris					21-000-02	
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				2501 CRATER LAKE NWT	MEDFORD	97201	Kon Bennett						
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				1020 NADDECAN ST		07501	Disbard Wikesell						
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				AAAA CRATER LAKE AVE	MEDEORD	07501	Novpard Madley						
210 SWR HAX OLL DCLEPART DOI 1. RIVERSIDE HEDROD 9701 HiLD HAR HILS C1001 / 1/2 - 2/2 10-DRA + 2 01-DCT - 2 210 SWR HAX OLL DCLEPART TOD 1. RIVERSIDE HEDROD 9701 HiLD HART G103 / 7/2 - 203 14-FEB-92 22-SEP-92 268 SWR HAY SOLL DLANT SARG 2185 GRIFHIN CR. KO MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RD. MEDROR 97501 Steve Hays G103 / 7/2 - 203 14-FEB-92 23-SAL-92 30-JAN-92 4261 SWR NAMES EQUIPHENT & FUEL 233 S. PACIFIC HW. MEDROR 97501 Steve Hays G103 / 7/2 - 203 10-FEB-92 24-AUG-92 26-AUG-92 26				301 N CENTRAL AVE	MEDEORD	07501	Pobert D George						
2199 SNR HANK OIL COMPANY 1050 S. RIVERSIDE MEDFORD 97501 Hike Haskins (503) 772-5273 16-MAR-92 01-OCT-92 32566 SWR HAYS OIL PLANT CABLOCK 1890 S. PACIFIC HWY. MEDFORD 97501 Steve Hays (503) 772-727303 172-FEE-92 22-SEP-92 4261 SWR LEATHERS OIL CO. 5020 TABLE ROCK RNO. MEDFORD 97501 Brent Leathers (503) 772-72103 14-HEE-92 22-SEP-92 1773 SWR MEDRORD FUEL 935 S. CENTRAL MEDFORD 97501 Bill Terpening (503) 772-621 16-HAR-92 30-JAN-92 6515 SWR PANDCO, INC 330 CRATER LAKE AVE. MEDFORD 97501 Richard Wright (503) 286-9621 06-FEE-92 04-AUG-92 6523 SWR PANDCO, INC 340 N. RIVERSIDE MEDFORD 97501 Richard Wright (503) 286-9621 06-FEE-92 04-AUG-92 4100 SWR PEEBLER, JACK N. 529 E. MAIN ST. MEDFORD 97501 lack N. Peebler (503) 772-6784 03-FEE-92 16-SEP-92 9992 SWR POMELL DISTRIBUTING CO. 3602 N. PACIFIC HWY MEDFORD 97501 lack N. Peebler (503) 772-6784 03-FEE-92 14-SEP-92 1333 SWR TEXARD SKARIN 1001 S. RIVERSIDE MEDFORD 97501 lack N. Peebler (503) 772-6784 03-FEE-92 31-AUG-92			HAUK UTI #0280	1047 S DIVEDSIDE	MEDEODD	07501	Nike Haukine	2					
3586 SWR HAYS OIL PLANT CARDLOCK 1890 S. PACIFIC HWY. MEDFORD 97501 Steve Hays (503) 772-763 (5772-673 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772-5772 (5772			HAUK OIL #7207	1007 S. RIVERSIDE			Mike Heukine						
6515 SWR PANOCO, INC 530 CRATER LAKE AVE. HEDFORD 97501 Richard Wright (503) 286-9621 06-FEB-92 06-AUG-92 6523 SWR PANOCO, INC 348 N. RIVERSIDE HEDFORD 97501 Richard Wright (503) 286-9621 06-FEB-92 06-AUG-92 6515 SWR PANCCO, INC 348 N. RIVERSIDE HEDFORD 97501 Richard Wright (503) 286-9621 06-FEB-92 06-AUG-92 4100 SWR PEELER, JACK N. 529 E. MAIN ST. MEDFORD 97501 Jack N. Peebler (503) 773-6891 23-HAR-92 8469 SWR REGENCY CAR WASH 1001 S. RIVERSIDE MEDFORD 97501 Jacm Poebler (503) 772-7846 03-FEB-92 13-AUG-92 1373 SWR TEXACO STATION 428 BARNETT RO. MEDFORD 97501 Ale Andert (503) 772-7846 13-IAU-92 28-SEP-92 1373 SWR RETRAL POINT BP 16 N. FRONT ST. CENTRAL POIN 97502 Kich Moran (503) 772-72053 <td></td> <td></td> <td></td> <td></td> <td>MEDFORD</td> <td>97501</td> <td>Steve Have</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>					MEDFORD	97501	Steve Have						
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6515 SWR PANOCO, INC 530 CRATER LAKE AVE. HEDFORD 97501 Richard Wright (503) 286-9621 06-FEB-92 06-AUG-92 6523 SWR PANOCO, INC 348 N. RIVERSIDE HEDFORD 97501 Richard Wright (503) 286-9621 06-FEB-92 06-AUG-92 6515 SWR PANCCO, INC 348 N. RIVERSIDE HEDFORD 97501 Richard Wright (503) 286-9621 06-FEB-92 06-AUG-92 4100 SWR PEELER, JACK N. 529 E. MAIN ST. MEDFORD 97501 Jack N. Peebler (503) 773-6891 23-HAR-92 8469 SWR REGENCY CAR WASH 1001 S. RIVERSIDE MEDFORD 97501 Jacm Poebler (503) 772-7846 03-FEB-92 13-AUG-92 1373 SWR TEXACO STATION 428 BARNETT RO. MEDFORD 97501 Ale Andert (503) 772-7846 13-IAU-92 28-SEP-92 1373 SWR RETRAL POINT BP 16 N. FRONT ST. CENTRAL POIN 97502 Kich Moran (503) 772-72053 <td></td> <td></td> <td>MEDFORD FUEL</td> <td>936 S. CENTRAL</td> <td>MEDFORD</td> <td>97501</td> <td>Bill Terpening</td> <td></td> <td>(503) 773-</td> <td>7311</td> <td>09-JAN-92</td> <td>30-SEP-92</td> <td>50 0/07 72</td>			MEDFORD FUEL	936 S. CENTRAL	MEDFORD	97501	Bill Terpening		(503) 773-	7311	09-JAN-92	30-SEP-92	50 0/07 72
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92			NAUMES EQUIPMENT & FUEL	2233 S. PACIFIC HWY.	MEDFORD	97501	Sam Naumes		(503) 772-	6223	10-FEB-92	24-AUG-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92			PANOCO, INC	530 CRATER LAKE AVE.	MED FORD	97501	Richard Wright		(503) 286-	-9621	06-FEB-92	06-AUG-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	6523	SWR	PANOCO, INC	348 N. RIVERSIDE	MED FORD	97501	Richard Wright		(503) 286-	9621	06-FEB-92	06-AUG-92	
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2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92			PEEBLER, JACK N.	529 E. MAIN ST.	MEDFORD	97501	Jack N. Peebler		(503) 773-	-4891	23-MAR-92		
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92			POWELL DISTRIBUTING CO.	3602 N. PACIFIC HWY	MEDFORD	97501	Jason Powell		(503) 289-	-5558	28-FEB-92	16-SEP-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92				1001 S. RIVERSIDE	MEDFORD	97501	Gary Mallicoat	•	(503) 772-	-7864	03-FEB-92	31-AUG-92	
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2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92				420 BAKNEII RU.	MEDFORD	97501	Dale Andert		(503) 225-	·4257	09-MAR-92		
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92				16 N EDONT ST	CENTRAL DOIN	97501	K A WITNAM Wike Menop		(503) 773-	2057	24-MAR-92	17-000-02	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92				10 N. FRUNI SI. 1045 EACT DINE STDEET	CENTRAL POIN	97502	Mike Moran Scott Bodd		(503) //2*	53/3	22- JAN-92	11-367-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92				9625 OLD STAGE ROAD	CENTRAL POIN	97502	Jane Cooper		(503) 855-	-7974	24-FFR-92	18-416-92	09-DEC-92
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92				5746 CRATER LAKE AVE.	CENTRAL POIN	97502	Steve Havs		(503) 772-	2053	14-FFB-92	22-SEP-92	0, 020 ,2
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92				2015 HANLEY RD.	CENTRAL POIN	97502	Kevin & Patti King		(503) 772-	5792	01-APR-92	01-0CT-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	6511	SWR	PANOCO, INC #27	1480 E. PINE	CENTRAL POIN	97502	Richard Wright		(503) 286-	9621	06-FEB-92	06-AUG-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	1390	S₩R	TEXACO SERVICE STATION	1125 E. PINE ST.	CENTRAL POIN	97502	Dale Andert		(503) 225-	4257	09-MAR-92		
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	9320	SWR	BILL TERPENING, INC. WHIT	ANTELOPE ROAD	WHITE CITY	97503	Bill Terpening		(503) 773-	7311	09-JAN-92	30-SEP-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92				6779 CRATER LAKE HWY 62	WHITE CITY	97503	Scott Pedd		(503) 479-	·5343	23-JAN-92	28-SEP-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	7697	SWR	L & E'S DELI MART	7625 CRATER LAKE HWY.	WHITE CITY	97503	Donna Hadley				15-JAN-92	10-SEP-92	
2358 SWR RAINEYS CORNER MARKET 4865 HWY 234 WHITE CITY 97503 Bobbie Rainey (503) 826-5421 09-JAN-92 22-MAY-92 10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	2556	SWR	NORTHROP, EARL	8380 HWY 62	WHITE CITY	97503	Earl Northrop		(503) 826-	2621	15-JAN-92	10-SEP-92	21-DEC-92
10083 SWR DAVE'S MOBIL 1100 BARNETT MEDFORD 97504 David Budreau (503) 779-1091 13-JAN-92 04-SEP-92 8855 SWR GAS-4-LESS 2232 BIDDLE ROAD MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 2415 SWR HAWK OIL #1345 2300 CRATER LAKE AVE. MEDFORD 97504 Mike Hawkins (503) 772-5275 16-MAR-92 01-OCT-92 8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	6520	SWR	PANOCO, INC	7640 CRATER LAKE HWY.	WHITE CITY	97503	Richard Wright		(503) 286-	9621	06-FEB-92	06-AUG-92	
8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	2358	SWR	RAINEYS CORNER MARKET	4865 HWY 234	WHITE CITY	97503	Bobbie Rainey	· · .			09-JAN-92	22-MAY-92	
8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92							David Budreau						
8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	8855	SWR	GAS-4-LESS				Mike Hawkins						
8182 SWR PEAR TREE CENTER 3730 FERN VALLEY ROAD MEDFORD 97504 Eddie L. Hendrikson (503) 223-4500 01-APR-92	2415	SWR	HAWK OIL #1345				Mike Hawkins					01-0CT-92	
5520 SWR ASHLAND MUNICIPAL AIRPORT DEAD INDIAN ROAD ASHLAND 97520 Steve Hall (503) 482-3211 01-APR-92	8182	SWR	PEAR TREE CENTER										
	5520	SWR	ASHLAND MUNICIPAL AIRPORT	DEAD INDIAN ROAD	ASHLAND	97520	Steve Hall		(503) 482-	-5211	01-APR-92		

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Statewide Summary Report - Zip Code Order

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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT Lorene Hale John Phimister Mike Moran Robert L. Voris Bill Terpening Robert Guthmiller Steve Hays Randy Hutton Mike Hawkins Kay & Kenneth Anderson Richard Wright Jason Powell Rex Bounds Danielle Roberts C.F. Adler Mike Hawkins Jeremy P. Guiliano Richard Mikesell Jeff A. Stiles Scott Pedd George L. McElroy Theron Robinson Charles Cobun Phillip O./Linda L. Blevins Jess & Joyce Woodard Richard A. Sumner Tom Jordahl Robert A. McCoy Ken & Joan Ferguson Ron Benoist Loyal Dean Mullenix Scott Pedd John Phimister Mike Moran Bill Terpening Scott Pedd Mike Hawkins Richard & Joyce Teal Scott Pedd Scott	PHONE	LOI	CA	APP
8905	SUR	ASHLAND TEXACO	2495 HWY 66 & 15	ASHLAND	97520	lorene Hale	(503) 772-6622	16-MAR-92	30-SEP-92	
6220	SUR	ASTRO #227	449 E. MAIN	ASHLAND	97520	John Phimister	(503) 243-7899	09-JAN-92	21-SEP-92	
3575	SWR	BI-MOR STATIONS #12 DBA C	1515 SISKIYOU BLVD.	ASHLAND	97520	Mike Moran	(503) 772-2053	22-JAN-92	17-SEP-92	
3407	SWR	BI-MOR STATIONS, INC. #5	1649 ASHLAND AVE.	ASHLAND	97520	Robert L. Voris	(503) 657-9147	05-FEB-92	17-SEP-92	
9318	SWR	BILL TERPENING INC., ASHL	150 LOWE RD.	ASHLAND	97520	Bill Terpening	(503) 773-7311	09-JAN-92	30-SEP-92	
2435	SWR	GUTHMILLER'S EXXON #9291	1765 SISKIYOU BLVD.	ASHLAND	97520	Robert Guthmiller		13-JAN-92	22-SEP-92	
4053	S₩R	HAYS OIL CARDLOCK #2	END OF SHAMROCK LANE	ASHLAND	97520	Steve Hays	(503) 772-2053	14-FEB-92	22-SEP-92	
6262	S₩R	JACKSON COUNTY PARKS & RE	HOWARD PRAIRIE LAKE	ASHLAND	97520	Randy Hutton	(503) 776-7001	20-MAR-92		
2417	SWR	LITHIA EXXON #2996	75 ^u C ^u ST.	ASHLAND	97520	Mike Hawkins	(503) 772-5275	16-MAR-92	01-0CT-92	
7615	SWR	LITHIA WAY EXPRESS LUBE	345 LITHIA WAY	ASHLAND	97520	Kay & Kenneth Anderson	(503) 488-5057	27-JAN-92	10-AUG-92	12-MAY-92
6529	SWR	PANOCO, INC #22	2490 ASHLAND BLVD.	ASHLAND	97520	Richard Wright	(503) 286-9621	06-FEB-92	06-AUG-92	
6032	SWR	POWELL DISTRIBUTING CO.,	2073 NORTH PACIFIC HIGHWA	ASHLAND	97520	Jason Powell	(503) 289-5558	28-FEB-92	16-SEP-92	
70	SWR	REX BOUNDS	2366 HIGHWAY 66	ASHLAND	97520	Rex Bounds	(503) 482-3166	24-MAR-92	30-SEP-92	
8824	SWR	ROBERTS SERVICE	595 N. MAIN	ASHLAND	97520	Danielle Roberts	(503) 482-8631	16-MAR-92	14-MAY-92	
15/2	SWR	ROGUE VALLET STATION	401 VALLEY VIEW RD.	ASHLAND	97520	U.F. Adler	(503) //6-122/	16-JAN-92	26-AUG-92	
2102	SMK	VALLET VIEW EXXUN #1235	AOU VALLEY VIEW KD @ I-D	ASHLAND	97520	Mike Hawkins	(505) (12-52/5	16-MAK-92	01-001-92	
1718	SMK	CAVE JUNCTION TEXACO		CAVE HUCTIO	97522	Pichard Mikesell	(503) 772-0101	13-JAN-92 27- 141-02	00-SEP-92	
1200	SUD	CHEVRON IIS & THE - 92	ANO REDUCOD HUY	CAVE UNCTIO	07523	Joff A Stiles	503/502-3080	15- IAN-92	15-1112-02	
9408	SUR	COLVIN OU CO	243 REDUCOD HUY	CAVE JUNCTIO	97523	Scott Redd	(503) 470-5343	23-144-02	78-SED-02	
9174	SUR	HOLLAND STORE	7251 HOLLAND LOOP ROAD	CAVE JUNCTIO	97523	George L. McElrov	(503) 592-4441	20-MAR-92	29-SEP-92	
4118	SWR	ROBBIE'S AUTO CARE CENTER	150 REDWOOD HWY	CAVE JUNCTIO	97523	Theron Robinson	(503) 592-2396	27-MAR-92		
629	S₩R	CHUCK'S ARCO	10668 HWY, 62	EAGLE POINT	97524	Charles Cobun	(503) 826-2868	09-JAN-92		
8831	S₩R	EAGLE POINT CHEVRON	107 MAIN, W.	EAGLE POINT	97524	Phillip O./Linda L. Blevins	(503) 826-7137	15-JAN-92	29-MAY-92	
626	SWR	JJ MARKET	14780 HWY_ 62	EAGLE POINT	97524	Jess & Joyce Woodard	(503) 826-5650	04-FEB-92	24-AUG-92	
278	SWR	LAKE CREEK STORE	1562 S. FORK LITTLE BUTTE	EAGLE POINT	97524	Richard A. Sumner		30-MAR-92		
5321	SWR	MIDWAY COUNTRY STORE	5600 BUTTE FALL HWY.	EAGLE POINT	97524	Tom Jordahl		16-JAN-92	01-OCT-92	
4900	SWR	BOB'S AUTOMOTIVE SERVICE	652 SECOND AVENUE	GOLD HILL	97525	Robert A. KcCoy	(503) 855-9853	19-MAR-92	28-SEP-92	
767	SWR	FOOTS CREEK COUNTRY STORE	3175 ROGUE RIVER HWY.	GOLD HILL	97525	Ken & Joan Ferguson		13-JAN-92	10-SEP-92	
8856	SWR	GOLD HILL TEXACO	404 2ND AVENUE	GOLD HILL	97525	Ron Benoist		20-MAR-92	17-SEP-92	
6014	SWR	ANTLERS GROCERY & SERVICE	8530 MONUMENT DR.	GRANTS PASS	97526	Loyal Dean Mullenix	(503) 476-4038	13-JAN-92	01-0CT-92	
6597	SWR	ARCO #5	1044 N.E. 6TH	GRANTS PASS	97526	Scott Pedd	(503) 479-5343	23-JAN-92	28-SEP-92	
6267	SWR	ASTRO #219	324 N.E. "E" ST.	GRANTS PASS	97526	John Phimister	(503) 245-7899	09-JAN-92	21-SEP-92	
7507	SWR	BI-MOR #21/DBA REDWOOD SH	ADE N.E. ZTH	GRANIS PASS	97520	Mike Moran	(503) 772 2053	22-JAN-92	17 SEP-92	
JJ77	SWK	BI-POK STATIONS #0	515 DOLCE DIVED WAY	CRANIS PASS	97526	Rill Terpoping	(503) 773-7311	22-JAN-92	11-SEP-92	
807	SMIC	RP OTL SITE #11016		GRANTS PASS	07526	Scott Redd	(503) /79-53/3	27-MAR-92	28-SEP-92	
2413	SUR	CAVEMAN EXXON #2871	104 N.W. MORGAN LANE	GRANTS PASS	97526	Mike Hawkins	(503) 772-5275	16-MAR-92	01-001-92	
2292	SUR	CLOVER CREST MARKET	2600 CLOVERIAWN DR.	GRANTS PASS	97526	Richard & Joyce Teal	(503) 479-3850	20-MAY-92	07-JUL-92	
7328	SWR	COLVIN OIL CO. ARCO #5	800 N.E. E ST.	GRANTS PASS	97526	Scott Pedd	(503) 479-5343	23-JAN-92	28-SEP-92	
6617	SUR	COLVIN OIL CO., GRANTS PA	650 REDWOOD HIGHWAY	GRANTS PASS	97526	Scott Pedd	(503) 479-5343	23-JAN-92	28-SEP-92	
6601	SUR	COLVIN OIL CO., GRANTS PA	1553 WILLIAMS HIGHWAY	GRANTS PASS	97526	Scott Pedd	(503) 479-5343	23-JAN-92	28-SEP-92	
6745	SWR	COLVIN OIL COMPANY, INC.	2520 FOOTHILL BOULEVARD	GRANTS PASS	97526	Scott Pedd	(503) 479-5343	23-JAN-92	28-SEP-92	
178	SWR	D & E COUNTRY STORE	350 OXYOKE RD.	GRANTS PASS	97526	Ella-Lou Staples	(503) 479-5996	14-FEB-92		
6044	SWR	DON'S PETROLEUM INC	610 REDWOOD HWY.	GRANTS PASS	97526	Don Jackson		22-JAN-92	30-SEP-92	
3870	SWR	E & I MARKET	1410 WILLIAMS HWY.	GRANTS PASS	97526	Keith W. & Dixie Mendenhall	(503) 476-4100	20-MAR-92	01-0CT-92	
8904	SWR	FREEWAY SHELL	1998 VINE STREET	GRANTS PASS	97526	Mike Moran	(503) 772-2053	22-JAN-92	17-SEP-92	
2424	SHR	HAWK OIL #6993	840 N.E. "F"	GRANTS PASS	97526	Mike Hawkins	(503) 772-5275	16-MAR-92	01-0CT-92	
9997	SWR	HUGO HITCHING POST	6411 HUGO ROAD	GRANTS PASS	97526	Kathleen V. Krushe	(503) 479-6518	28-MAY-92	28-SEP-92	
8603	SWR	JENKINS MARKET	2035 SW BRIDGE STREET	GRANTS PASS	97526	Cliff Jenkins	(505) 474-7722	18-FEB-92	24-AUG-92	

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Statewide Summary Report - Zip Code Order

FAC 1D	REG	FAC NAME	ADDRESS 4986 MONUNEMT DRIVE 5000 MONUMENT DRIVE 529 N.E. "F" ST. 1741 SOUTH PACIFIC HIGHWA 5635 RIVERBANK ROAD 124 N.E. MORGAN LANE 935 ROGUE RIVER HWY. 509 S.E. 7TH ST. 3660 ROGUE RIVER HWY. 509 S.E. 7TH ST. 3660 ROGUE RIVER HWY. 6891 WILLIAMS HWY. 6410 WILLIAMS HWY. 6410 WILLIAMS HWY. 5547 RIVERBANKS 7500 HWY 238 945 STH ST. 9045 U. APPLEGATE ROAD 20'S.E. CALIFORNIA ST. 109 GALICE ROAD 11744 GALICE RD. 310 MERLIN RD. 33096 REDWOOD HWY. 608 N. MAIN ST. 800 N. MAIN ST. 810 E. EVANS CREEK DR 351 MILL CREEK DRIVE 480 MILL CREEK DRIVE 480 MILL CREEK RD. 142 DEPOT STREET 816 E. EVANS CREEK RD. 18430 REDWOOD HWY 21825 HWY #62 21 TALENT AVE. 24231 HWY. 62 26876 HIGHWAY 62 26876 HIGHWAY 62 26876 HIGHWAY 62 26876 HIGHWAY 62 26876 HIGHWAY 62 27845 REDWOOD HWY 14299 WILLIAMS HWY. 120 EAST FORK ROAD 20180 WILLIAMS DR. 137 DUERSIDE DR	CITY	ZIP	CONTACT	· . 	PHONE		LOI	CA	APP
8900	SWR	NORTH VALLEY FUEL	4986 MONUNEMT DRIVE	GRANTS PASS	97526	Justin V. George		(503)	476-2525	06-MAR-92		
4492	SWR	NORTH VALLEY TEXACO	5000 MONUMENT DRIVE	GRANTS PASS	97526	Jeremy P. Guiliano		(503)	772-6181	31-JAN-92	08-SEP-92	
7670	SWR	OIL HOUSE, THE	529 N.E. "F" ST.	GRANTS PASS	97526	James Ayling	•	(503)	476-2218	12-FEB-92	24-SEP-92	
6037	SWR	POWELL DISTRIB. CO., COLV	1741 SOUTH PACIFIC HIGHWA	GRANTS PASS	97526	Jason Powell		(503)	289-5558	28-FEB-92	16-SEP-92	
540	SWR	RIVER BANKS MARKET	5635 RIVERBANK ROAD	GRANTS PASS	97526	Lee Walker		(503)	479-1416	27-MAR-92		
1384	SWR	TEXACO SERVICE STATION	124 N.E. MORGAN LANE	GRANTS PASS	97526	Dale Andert	1.	(503)	225-4257	09-MAR-92		
7651	SWR	U-SAVE GAS	935 ROGUE RIVER HWY.	GRANTS PASS	97526	Patricia K. Lingafe	l'ter	(503)	476-1783	30-MAR-92	21-AUG-92	
3224	SWR	VIRGIL'S CHEVRON STATION	509 S.E. 7TH ST.	GRANTS PASS	97526	Virgil Welch		(503)	476-3565	11-MAR-92	08-SEP-92	
9390	SWR	ALTHEIDE, SYLVIA	3660 ROGUE RIVER HWY	GRANTS PASS	97527	Sylvia Altheide		(503)	474-0871	30-MAR-92		
9187	SWR	FAIRGROUNDS TEXACO	780 UNION AVENUE	GRANTS PASS	97527	Randy Harris		(503)	476-6321	19-FEB-92	21-SEP-92	
2257	SWR	MURPHY AUTOMOTIVE	6891 WILLIAMS HWY.	GRANTS PASS	97527	Fred Herrman		(503)	772-6363	30-MAR-92	30-SEP-92	
9108	SWR	MURPHY STORE	6410 WILLIAMS HWY	GRANTS PASS	97527	David & Steve Rives	;	(503)	862-2135	08-JAN-92	18-AUG-92	
4525	SWR	SHAN CREEK MARKET	5547 RIVERBANKS	GRANTS PASS	97527	Oliff Matney		(503)	476-3895	18-MAR-92	09-SEP-92	
9231	SWR	7-7 MINI MART	7500 HWY 238	JACKSONVILLE	97530	Mary M. Jacks		(503)	899-1346	10-JAN-92	11-MAY-92	
9209	SWR	APPLEGATE STORE	15095 HWY 238	APPLEGATE	97530	Randi H. Lummis	•	(503)	846-6659	18-FEB-92	11-MAY-92	
5085	SWR	JACKSONVILLE TEXACO -	-945 5TH ST.	JACKSONVILLE	97530	Robert D. George	А.	(503)	899-7761	23-MAR-92	17-SEP-92	05-0CT-92
10044	SWR	MCKEE BRIDGE STORE	9045 U. APPLEGATE ROAD	JACKSONVILLE	97530	Tim Connolly		(503)	899-1101	16-MAR-92	21-SEP-92	
350	SWR	RASMUSSEN'S SUPER SERVICE	20'S.E. CALIFORNIA ST.	JACKSONVILLE	97530	Ervin Loyd Rasmusse	n	(503)	899-1067	21-JAN-92	10-SEP-92	
8842	SWR	C & D MARKET	109 GALICE ROAD	MERLIN	97532	Karl & Alice Ulrich		(503)	476-3831	23-MAR-92	28-SEP-92	
5628	SWR	GALICE STORE	11744 GALICE RD.	MERLIN	97532	Mary Thomason		(503)	476-3818	13-JAN-92	13-MAY-92	
7675	SWR	MERLIN GAS PUUMP (WILLIAM	310 MERLIN RD.	MERLIN	97532	William H. Plante		(503)	476-1566	30-MAR-92	01-0CT-92	
1231	SWR	MOORE, GARY	33096 REDWOOD HWY.	O'BRIEN	97534	Gary Moore	-	(503)	596-2555	U1-APR-92	28-SEP-92	
5405	SWR	BI-MOR STATIONS, INC. #2	608 N. MAIN ST.	PHOENIX	97535	Virginia Vinson	•	(503)	535-4164	16-JAN-92	28-SEP-92	
2430	SWR	PHOENIX EXXON #9290	800 N. MAIN	PHOENIX	97535	Mike Hawkins		(503)	772-5275	16-MAR-92	01-001-92	
9610	SWR	CASCADE GORGE PROPERTIES	2651 MILL CREEK DR	PROSPECT	97536	Carl Wegner		(503)	560-3795	18-MAR-92	29-JUN-92	
8890	J SWR	PROSPECT AUTOMOTIVE	351 MILL CREEK DRIVE	PROSPECT	97536	A. U. Dewayne		(503)	500-3004	21-JAN-92	01-001-92	
20/3	SWR	PRUSPECI JEXALU	480 MILL LKEEK	PRUSPECT	91000	Dorts Wegner		(202)	200-2919	17-MAK-72	01-001-92	
2210 4477		CONTRACT CONTRACT	HWY. 62 OF DINE STREET	PRUSPECT	9/000	James K. King		(503)	200-2202	2%- 14N-02	28-550-02	
3734		LADDY/S TDIANGLE SERVICE	MAIN & DEDOT ST	POCHE PIVER	07537	Gordon I Watch		(503)	582-3253	01-4PP-92	14-SEP-02	
2633	SUP	POCHE PIVER FXXAN #9316	#1 DINE ST	ROGUE RIVER	07537	Mike Haukins		(503)	772-5275	16-MAR-92	01-001-92	
4750		ROGUE RIVER TEXACO	42 DEPOT STREET	ROGUE RIVER	97537	Jeremy P Guiliano		(503)	772-6181	31- JAN-92	08-SEP-92	
2811	SUR	WIMER FAMILY MARKET	8816 F EVANS CREEK RD	ROGUE RIVER	97537	Josephine Worthingt	on	(503)	582-3371	07-FEB-92	16-SEP-92	
10/	รมต	SELMA SERVICE		SELMA	97538	Richard Mikesell		(503)	928-3385	23-JAN-92	07-AUG-92	
5668	SUR	SHADY COVE EXXON SERVICE	21825 HUY #62	SHADY COVE	97539	Al Rad		(503)	878-2442	16-MAR-92	10-SEP-92	
2375	SWR	SHADY COVE MOBIL	21882 HWY 62	SHADY COVE	97539	Bill Terpening		(503)	773-7311	09-JAN-92	30-SEP-92	
4234	SWR	TALENT GAS-4-LESS #9400	21 TALENT AVE.	TALENT	97540	Mike Hawkins		(503)	772-5275	16-MAR-92	01-0CT-92	
4115	SWR	PLUME. ED	24231 HWY. 62	TRAIL	97541	Ed Plume		(503)	878-2145	22-JAN-92	22-SEP-92	
5637	SUR	SUNSET ON THE ROGUE	26876 HIGHWAY 62	TRAIL	97541	Norman & Adelia Ond	rev	(503)	878-3330	20-MAR-92	21-AUG-92	
9359	SWR	COCHRAN, LARRY & SHERRY	7845 REDWOOD HWY	WILDERVILLE	97543	Larry & Sherry Coch	iran	(503)	476-3924	30-MAR-92	24-SEP-92	
555	SWR	PROVOLT STORE	14299 WILLIAMS HWY.	WILLIAMS	97544	Doralee McLaughlin		(503)	846-6286	30-MAR-92		
9298	SWR	T & H GAS	120 EAST FORK ROAD	WILLIAMS	97544	Richard Worth		(503)	846-6940	23-JAN-92		
4929	SWR	WILLIAMS GENERAL STORE	20180 WILLIAMS HWY	WILLIAMS	97544	John & Marge Chambe	rs	(503)	846-6212	20-MAR-92	01-0CT-92	
11	I CR	T & H GAS WILLIAMS GENERAL STORE A.M.A.MINI MART/TEXACO SE ALTAMONT SERVICE	7255 S. 6TH ST.	KLAMATH FALL	97601	Anesti Audeh		(503)	882-3463	14-FEB-92	23-JUL-92	23-JUL-92
7882	2 CR	ALTAMONT SERVICE	2700 ALTAMONT DR.	KLAMATH FALL	97601	Anthony & Anna Dell	a Ripa	(818)	703-6138	31-MAR-92	21-AUG-92	
3250	CR	BEACON GAS-N-GO #11-6	4214 GREENSPRINGS DR.	KLAMATH FALL	97601	L R Mittnacht	•	(503)	883-8412	24-FEB-92	30-SEP-92	
762	7 CR	BOYER'S CORNER MARKET	1939 RIVERSIDE DR.	KLAMATH FALL	97601	Martin & Glenda Boy	er	(503)	882-3915	10-JAN-92	10-SEP-92	
		CAMPUS TEXACO SERVICE	BIEHN ST. AT HWY. 97N	KLAMATH FALL	97601	Terry Slade		(503)	884-4117	12-FEB-92	04-SEP-92	
		CARDLOCK	978 SPRING ST.	KLAMATH FALL	97601	Ed Clough		(503)	884-5167	27-MAR-92	01-SEP-92	
		CHEVRON U.S.A., INC 90	3131 S. 6TH	KLAMATH FALL	97601	Anthony & Anna Dell L R Mittnacht Martin & Glenda Boy Terry Slade Ed Clough Terry L. Wilkenson		(503)	882-6875	03-FEB-92		

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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT Ed Clough Ed Clough Scott Pedd Thomas A. Darling Janine Barrett Terry Slade Donald H. Hartvig Terry Slade James F. Clough James Titus Janine Barrett Terry Slade Thomas & Beth Stout Robert Langley Terry Slade France M & Ronald L Hahn Dino Boito Gail H. Rickards Andy Parker et all Janine Barrett H. C. Hassett Terry Slade Terry Slade Terry Slade Terry Slade Terry Slade Terry Slade L R Mittnacht Dick Gordon Chuck & Ann Cleland Leona Maddax Dean Lawrence Anduth Neuroth Gregory J. Decker Terry Slade Terry Slade Terry Slade Terry Slade Fred & Pamela Tuttle Samuel A. Acinelli Jr. David Staub Michael D. Counts James H. Gipson Robbie Lake Bob Gray John Conroy Jeffery W & Carol J Sullivan Dave LeQuieu Brad Staub Brad Staub	PHONE	LOI	CA	APP
267	CR	CLOUGH OIL CO	3730 HIGHWAY 97 NORTH	KLAMATH FALL	97601	Ed Clough	(503) 884-5167	27-MAR-92	01-007-92	
703	CR	CLOUGH OIL CO.	3303 WASHBURN WAY	KLAMATH FALL	97601	Ed Clough	(503) 884-5167	27-MAR-92	01-001-92	
692	CR	CLOUGH OIL CO. (CARDLOCK)	3620 N. HWY 97	KLAMATH FALL	97601	Ed Clough	(503) 884-5167	27-MAR-92	01-0CT-92	
8261	CR	COLVIN OIL CO., KLAMATH F	3434 S. 6TH ST.	KLAMATH FALL	97601	Scott Pedd	(503) 479-5343	23-JAN-92	28-SEP-92	
1209	CR	DARLINGS OIL WELL #1	SPRAGUE RIVER HWY	KLAMATH FALL	97601	Thomas A. Darling	(805) 482-6983	27-MAR-92	29-SEP-92	
4883	CR	EAST MAIN GULL #414	630 E. MAIN ST.	KLAMATH FALL	97601	Janine Barrett	(206) 624-5900	30-MAR-92	01-0CT-92	
4780	CR	EIGHTEEN WHEELER TRUCKSTO	8600 HWY 97 s.	KLAMATH FALL	97601	Terry Slade	(503) 884-4117	12-FEB-92	04-SEP-92	
323	CR	FRANKO #45	RT. 5, BOX 1325	KLAMATH FALL	97601	Donald H. Hartvig	(503) 295-2668	01-APR-92		
1519	CR	HOMEDALE TEXACO & FOOD MA	5419 S. 6TH	KLAMATH FALL	97601	Terry Slade	(503) 884-4117	12-FEB-92	04-SEP-92	
2692	CR	JIM CLOUGH/DBA THURBER FU	3021 GREENSPRINGS DRIVE	KLAMATH FALL	97601	James F. Clough	(503) 884-5167	18-MAR-92	01-0CT-92	
2350	CR	JIM'S DETAIL PLUS	2104 SOUTH 6TH ST.	KLAMATH FALL	97601	James Titus	(503) 883-1744	08-JAN-92	01-0CT-92	
4885	CR	JOHNNY'S GULL #413	2566 S. SIXTH ST.	KLAMATH FALL	97601	Janine Barrett	(206) 624-5900	30-MAR-92	01-0CT-92	
1521	CR	MAIN ST. SHELL	135 MAIN ST.	KLAMATH FALL	97601	Terry Slade	(503) 884-4117	12-FEB-92	04-SEP-92	
· /5/	CR	ODESSA MERCANTILE	28200 HWY 140 W	KLAMATH FALL	97601	Thomas & Beth Stout	(503) 356-2207	09-JAN-92	11-MAY-92	
1/5	CR	ULENE STURE	15200 HW1. 140E	KLAMAIN FALL	97601	Robert Langley	(503) 884-3666	U8-JAN-92	11-MAY-92	
4///	CR	UREGUN AVENUE SERVICE	-2075 UKEGUN AVE.	KLAMAIN FALL	97601	Terry Stade	(503) 884-4117	12-FEB-92	04-SEP-92	
7421	CD	PELICAN MAKINA	VET C ATH OT	KLAMAIN FALL	97001	France M & Ronald L Mann	(303) 882-3834	30-MAK-92		
222	CR	RICK DAISELL'S EAAUN SERV	HADDINAN DT DOV 00	KLAMAIN PALL	07401	Cail H. Biskanda	((U)) 000-4949 (EAT) 754 0007	09-061-92 70 MMP 02	04 007 07	
2145	CD	CEDUICE STATION	AZZO C CIVILLOT	KLAMAIN FALL	07601	Gall H. Rickards	(303) 300-2207	30-MAR-92	01-061-92	
107	CD	SERVICE STATION	400 S. SIAIN SI. 7401 SUACTA HAV	KLAMATH FALL	07601	Andy Parker et att	(202) 941-2011	27-MAK-92	01-522-92	
4070	CR	THURPERS TRUCK STOR	2011 STASIA WAT	NEAMAIN FALL	07601		(200) 024-3900 (E07) 803-0504	30-MAK-92	01-061-92	
J247 622	C0	TOUN & COUNTRY TEVACO	3732 C ATH CT	KLAMATH FALL	07601	n. c. nassell Terry Slade	(503) 884-4117	17_FED_07	21_CED_02	
8337	CR CR	UERRIS SERVICE	2135 S ATH STREET	KLAMATH FALL	07601	Terry Slade	(503) 884-4117	12-FEB-92	01-0CT-02	
1524	CR	WORDEN TRUCK STOP	HWY. 97 S.	KLAMATH FALL	97601	Terry Slade	(503) 884-4117	12-FFB-92	04-SEP-92	
8546	CR	COUNTRY VILLA MARKET	4449 HOMEDALE ROAD	KLAMATH FALL	97603	L R Mittnacht	(503) 883-8412	24-FEB-92	16-SEP-92	
10737	CR	CRATER LAKE LODGE, INC.	MAZAMA VILLAGE	CRATER LAKE	97604	Dick Gordon	(503) 594-2511	24-MAR-92		
9924	CR	ADEL STORE	P.O. BOX 19	ADEL	97620	Chuck & Ann Cleland	(503) 947-3850	25-MAR-92	01-0CT-92	
149	CR	NEW BEATTY STORE	P.O.BOX 133	BEATTY	97621	Leona Maddax	(503) 533-2469	30-MAR-92	24-SEP-92	
2021	CR	LAWRENCE CHEVRON	HWY. 140	BLY	97622	Dean Lawrence	(503) 353-2551	31-JAN-92	28-SEP-92	
345	CR	ALLEN B. MYERS	HWY. 140 / ROUTE "A", BOX	BONANZA	97623	Anduth Neuroth	(503) 545-6929	01-APR-92		
99 09	CR	BONANZA MINI MART & SHELL	HWY 70 & 2ND ST.	BONANZA	97623	Gregory J. Decker	(503) 884-2552	27-JAN-92	24-JUL-92	30-0CT-92
1525	CR	CASCADE 97	HWY 97	CHILOQUIN	97624	Terry Slade	(503) 884-4117	12-FEB-92	04-SEP-92	
1517	CR	CHILOQUIN SHELL	1ST & CHOCKTOOT	CHILOQUIN	97624	Terry Slade	(503) 884-4117	12-FEB-92	04-SEP-92	
1174	CR	CLOUGH OIL CO CARDLOCK	HWY 97 N & 422 S	CHILOQUIN	97624	Ed Clough	(503) 884-5167	27-MAR-92	01-0CT-92	
1527	CR	MAT-SLADE UIL LU.	P.U. BUX 215	CHILOQUIN	9/024	Terry Stade	(503) 884-4117	12-FEB-92	30-SEP-92	
073Z 8/15	CP	SAND CREEK STATION		KENO	07627	Fred & Pamela luttle	(503) 882-0036	10-MAK-92	71-557-92	
676/	CD CD	ED STAIR & SONS DETROI FIM	1440 NORTH 4TH	1 AVEVIEU	07630	David Staub	(503) 802-3350	01_ADD_02	21-3LF-72	
281	CD	EIVE CORNERS STORE	5 MILES UEST LAVEVIEU ON		07630	Michael D. Counts	(503) 947 2101	28-FER-02	13-MAY-02	
00/4	СR СВ	LAKE COUNTY AIDDODT	COUNTY DOAD	1 AKEVIEW	07630	lames W Gincon	(503) 947-5497	20-768-72	1J-11A1 72	
5102	CD.	LAKE COUNTLAIRFORT	126 N F ST	LAKEVIEN	07630	Pobbie Lake	(503) 947 0000	13- IAN-02		
0087	CD	INVENTED RD	715 N /TU	LAKEVIEN	07630	Rob Gray	(016) 2/1-1167	30-MAD-02	01-001-02	
5067	CD.	LAREVIEW OF			07630	David Staub	(503) 241-1107	01-ADD-02	01 001 72	
2704 8330	CR CD	LAKEVIEW TRUCK STOP			97630	Bob Grav	(016) 241-1167	30-MAR-92	01-001-92	
6073	CR	MT HIGH SERVICE INC	350 HUY 395 W	LAKEVIEW	97630	John Coprov	(503) 947-4578	27-MAR-92	14-SEP-92	
101	CR	VALLEY FALLS STORE	HC-64 BOX 689	LAKEVIEW	97630	Jefferv W & Carol J Sullivan	(503) 947-2052	01-APR-92		
5036	CR	DAVE'S INDEPENDENT STATIO	2234 RAILROAD & BROADWAY	MALIN	97632	Dave LeQuieu	(503) 723-6796	26-MAR-92	01-001-92	
694	CR	STAUB PETROLEUM PRODUCTS	MAIN & BROADWAY	MALIN	97632	Dave LeQuieu Brad Staub Brad Staub	(916) 667-2227	01-APR-92		
1509	CR	A & M TEXACO	MAIN & FRONT	MERRILL	97633	Brad Staub	(916) 667-2227	01-APR-92		

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C ID REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT Phil Murray Brad Staub James R. Merrilees Gene & Rebecca Smith Gerald & Janice Warren Bernice R. McKay Alfred & Claudia Green George Van Scoy Ernest Drapela Robert J. Nordby Robert J. Nordby GARY P ANDERSON Dan H. Vogt Robert J. Nordby ROB FOREST James G. Ivy Jerald D. Gardner Mickey D. Haisler Robert J. Nordby Michael L. Fassett Darl L. Rodgers Lee Pentecost Tami J. Bryant Robert J. Nordby Kenneth Weston Kent Rockholt Kreg Roth David Jordan Leroy Hackbart David J. Quiros Kim Wolfe James Frazee Michael L. Fassett George M. Wells Jim Ford William B. Sisson Margaret Ann Cole Ken & Julie Thompson Shirley A. Moore Gary Robertson Chris Summers Raymond Weeks T. M. Marshall Harvey Barnes Stanford R. Bennett Donald H. Hartvig L R Swarthout Brent Leathers Brent Leathers		PHONE	LOI	CA	APP
	FRANKO #44	E. FRONT STREET/P.O. BOX	MERRILL	97633	Phil Murray		(503) 588-0455	16-MAR-92	01-OCT-92	
9965 CR	HATFIELD PACIFIC PRIDE	HWY 39 AND STATELINE ROAD	MERRILL	97633	Brad Staub		(916) 667-2227	01-APR-92	÷	
		FRONT STREET, P.O. BOX 29	MERRILL	97633	James R. Merrilees		(503) 798-5816	16-JAN-92	09-JUN-92	
238 CR	MIDLAND TEXACO	HWY 97 S. AT MAIN ST.	MIDLAND	97634	Gene & Rebecca Smith		(503) 884-1715	01-APR-92		
448 CR	WARREN, GERALD D. & JANICE	1ST & MAIN	MIDLAND	97634	Gerald & Janice Warren		(503) 882-1172	23-MAR-92	21-SEP-92	
		P. O. BOX 36	SUMMER LAKE	97640	Bernice R. McKay		(503) 943-3164	17-JAN-92	28-SEP-92	
		26160 ALFALFA RD.	BEND	97701	Alfred & Claudia Green		(503) 382-0761	27-JAN-92	14-SEP-92	
	BEAR COUNTRY PETROLEUM, I	26160 ALFALFA RD. 19 N.E. OLNEY AVE. 1700.SW SIMPSON	BEND	97701	George Van Scov		(503) 382-4561	20-MAR-92		
(056 CP	BEND METRO PARKS	1700.SW SIMPSON	BEND	97701	Ernest Drapela		(503) 389-7275	30-JAN-92		
5398 CR	BEND OIL CO./FIRST STREET	913 N.E. FIRST 612 S.E. THIRD 1120 S.E. HWY 97 1315 E. 3RD 555 N.W. FRANKLIN 3305 N. HWY 97	BEND	97701	Robert J. Nordby		(503) 382-4751	10-JAN-92	06-JUL-92	
829 CR	BEND OIL CO./SOUTH PACIFI	612 S.E. THIRD	BEND	97701	Robert J. Nordby		(503) 382-4751	10-JAN-92	06-JUL-92	
407 CR	CHEVRON U.S.A. INC 90	1120 S.E. HWY 97	BEND	97701	GARY P ANDERSON		503/382-1109	01-APR-92		
026 CR	CHEVRON U.S.A., INC 98	1315 E. 3RD	BEND	97701	Dan H. Vogt		(503) 389-1025	27-MAR-92	23-SEP-92	
832 CR	CITY CENTER SHELL SERVICE	555 N.W. FRANKLIN	BEND	97701	Robert J. Nordby		(503) 382-4751	10-JAN-92		
564 CR	HARRIS ENTERPRISES. INC.	3305 N. HWY 97	BEND	97701	ROB FOREST		(503) 682-3865	15-JAN-92	25-SEP-92	
7453 CR	IVY'S TUMALO STORE	64683 COOK AVE.	BEND	97701	James G. Tvv		(503) 475-2422	23-MAR-92	18-SEP-92	
146 CR	JERRY'S QUIK STOP	1815 N.E. 3RD	BEND	97701	Jerald D. Gardner		(503) 389-1276	07-FEB-92	21-SEP-92	
529 CR	MULLICAN STORE	BEND-BURNS HWY U.S. 20, S	BEND	97701	Mickey D. Haisler		(503) 576-2746	19-MAR-92	22-SEP-92	
1716 CR	NORTH SHELL	1143 N.F. THIRD	BEND	97701	Robert J. Nordby		(503) 382-4751	10-JAN-92		
196 CR	PLIOT BUTTE EXXON	764 N.E. GREENWOOD	BEND	97701	Robert J Nordby		(503) 382-4751	10-JAN-92	06-301-92	
642 CR	JERRY'S QUIK STOP MILLICAN STORE NORTH SHELL PILOT BUTTE EXXON RED CARPET CAR WASH	1144 N F 3RD	REND	97701	Michael I Fassett		(503) 388-2652	02-MAR-92	29-SEP-92	
261 CR	RED CARPET CAR WASH RIVERSIDE SERVICE & GROCE UNOCAL 14327 WADE BRYANTS AUTO SERVICE UESTSIDE EXYON	285 RIVERSIDE	REND	07701	Dari i Rodgers		(503) 382-8771	01-APR-92	2, 02, 72	
553 CP		63076 N HUY 97	BEND	97701	lee Pentecost		(503) 638-3702	01-APR-92	25-SEP-92	
827 CR	UADE REVANTS AUTO SERVICE	755 N E GREENUOOD	REND	97701	Tami I Bryant		(503) 389-4775	09-MAR-92	28-SEP-92	
100 00	WESTSIDE EXXON	981 GALVESTON STREET	REND	97701	Robert I Nordby		(503) 382-4751	10-JAN-92	06-301-92	
	WESTSIDE MOBIL CAR WASH (REND	97701	Keppeth Weston		(503) 382-6126	23-MAR-92	01-0CT-92	
5845 CR		44 ML. S.W. BEND OR. HWY.	REND	97702	Kent Rockholt		(503) 389-3230	30-MAR-92		
101 CR	DBJ CORP	353 S.E. THIRD ST	REND	07702	Kreg Roth		(503) 389-7368	30-MAR-92	28-SEP-92	
101 OR 8637 CR	DESCHUTES COUNTRY STORE,	19745 BAKER ROAD	BEND	97702	David Jordan		(503) 389-0503	16-MAR-92	30-SEP-92	
180 CR	ELK LAKE RESORT	CASCADES LAKES HWY.	BEND	97702	Leroy Hackbart		(503) 389-6736	30-MAR-92	21-SEP-92	
	INN OF 7TH MTN./MOBIL GAS	18575 S. CENTURY DR	REND	97702	David L Quiros		(503) 389-9318	01-APR-92	30-SEP-92	
		61260 S. HWY 97	BEND	07702	Kim Uolfe		(503) 382-1041	23-MAR-92	28-416-92	
1103 CK		CASCADE LAKES HWY. CLOSE	REND	07702	lomos Erozoa		(503) 382-7857	30-MAR-02	30-SED-02	
	RED CARPET CAR WASH	235 S.E. 3RD	DEND	07702	Wichool L Ecocott		(503) 388-2652	02-240-02	20-SED-02	
	RIPP, WELLS & WELLS COMME	1100 S E DIVISION	BEND	07702	George M. Malte		(503) 388-0802	30-MAD-02		
		61396 S. HWY 97	REND	07702	lim Ford		(503) 388-4520	16IAN-92	01-001-92	
	TWIN LAKES RESORT, INC.	11200 S. HWI 77	REND	97702	William R. Sieson		(503) 503-6526	23-MAR-92	29-SEP-92	
		2100 NE HWY 20	REND	07700	Margaret Ann Cole		(503) 382-3561	26-FF8-92	10-SEP-92	
	FIELDS GENERAL STORE	ETOO ME MAT EO	FIFIDS	97710	Ken & Julie Thompson		(503) 388-7365	25-MAR-92	21-SEP-92	
	BROTHERS STAGE STOP	34100 HWY 20 E - PO BOX 1	BROTHERS	07712	Shirley & Moore		(503) 576-2755	08-JAN-92	11-MAY-92	
	HAMPTON STATION	EAST HWY. 20	HAMPTON	07712	Gary Robertson	1	(503) 576-2622	02-MAR-92	25-SEP-92	
		14 NORTH BROADWAY	BUDNS	07720	Chris Summers		(503) 888-6061	30-MAR-92	20-SEP-02	
	BURNS CHEVRON	BROADWAY & MADISON STREET	DIDNC	07720	Paymond Uppke		(503) 573-2622	2314N-02	01-067-02	
		199 H DOGADIAV	DUDIC	07720	T M Manoball		(503) 573 LOLL (503) 573 LOLL	1/- 148-02	15-444-02	
	BURNS FORD, INC.	188 N BROADWAY	DULNO	71140	I. M. MdiSidil Verward Repres		(505) 573-0014 (503) 572-5955	20-MAD-07	12 PMT 72	
		HC 71, BOX 87A	BUKNS	91120	narvey Barnes		(JUJ) J/J-J2JJ (EAZ) E7Z-2074	20-MAR 72	11_050_00	
	BURNS ONE STOP SERVICE	682 N. BROADWAY	BUKNS	91120	Stantord K. Bennett		(303) 2/3~27/0 (E07) 20E 24/0	20"FEB-92	11-254-44	
	FRANKO #1	524 W. MONROE	BUKNS	97720	Donalo H. Hartvig		(303) 273-2008 (503) 577 2742	0178PK-92	21-000 02	
2202 CR	L.R. SWARTHOUT, INC.	19 W. MONROE	BURNS	97720	L K SWAFTROUT		(JUD) 275-0310 (E07) 444 4077	27-JAN-92 10- JAN-02	21-327-92	
+299 CR		HINES & FILMORE	BUKNS	97720	Brent Leathers		(303) 001-1244	10-JAN-92	25-100-74	28. 169-
3223 CR	LEATHERS OIL CO.	1202 OREGON AVE.	BORNS	91120	Brent Leathers		(503) 661-1244	IU-JAN-92	29-400-92	ZO-JAN-



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FAC ID	REG	FAC NAME	ADDRESS	CITY	ZIP		PHONE		LOI	CA	APP
5206	ĊR	OARD'S SERVICE & GARAGE	SR 2 - 1604 BUCHANAN	BURNS	97720	James R. Oard Pattiy Glerup Steve Hebener Shana Lee Crisp Lawrence W. & Mary Loar Sr.	(503)		08- IAN-92	28-SED-07	
		SAM'S SERVICE	596 N. BROADWAY	BURNS	97720	Pattiv Glerup	(503)	513-6966	21-JAN-92	21-406-92	
		STEVE'S EXXON	596 N. BROADWAY 489 W. MONROE BOX 1	BURNS	97720	Steve Hebener	(503)	573-9030	27-MAR-92	22-101-92	
		PRINCETON SERVICE	BOX 1	PRINCETON	97721	Shana Lee Crisp	(503)	573-5450	01-APR-92	22 002 74	
		CAMP SHERMAN STORE	CENTER OF MAIN ROAD	CAMP SHERMAN	97730	Lawrence W. & Mary Loar Sr.			27-JAN-92	18-SEP-92	
9956	CR	CHEMULT OIL COMPANY, INC.	HWY 97 AND SECOND STREET	CHEMULT	97731	Richard Davis	(503)	549-6811	23-MAR-92	01-0CT-92	
0777	CD	CUCHINT TEXACO	HWY 97 & 1ST STREET	CHEMULT	97731	Gil Ernst	(503)	433-9511	19-MAR-92	26-AUG-92	
8866	CR	CREMOLI TEXACO DIAMOND LAKE RESORT ERICKSONS EXXON P.J.'S EXXON CRESCENT CHEVRON CRESCENT TEXACO HIGH CHAPARRAL INN LEATHERS OIL CO.	(NONE)	DIAMOND LAKE	97731	Steve Koch	(503)	793-3333	06-FE8-92	14-SEP-92	
666	CR	ERICKSONS EXXON	STAR ROUTE-CHEMULT	CHEMULT	97731	Robert J. Nordby	(503)	382-4751	10-JAN-92	06-JUL-92	
8897	CR	P.J./S EXXON	HWY 97 & 3RD P.O. BOX 152	CHEMULT	97731	Penny Jacobson			26-FEB-92		
85	CR	CRESCENT CHEVRON	HWY. 97 SOUTH	CRESCENT	97733	George Van Scoy	(503)	382-4561	11-MAR-92	21-SEP-92	
9416	CR	CRESCENT TEXACO	HWY 97 & WARD STREET	CRESCENT	97733	Jeff & Wendy Coker			23-JAN-92	13-MAY-92	
9217	CR	HIGH CHAPARRAL INN	5520 SW PECK RD	CULVER	97734	Richard Becker	(503)	546-6531	15-JAN-92	31-AUG-92	
4248	CR	LEATHERS OIL CO.	5520 SW PECK RD 1ST & E STREET R. ROADS 510 - 512	CULVER	97734	Brent Leathers	(503)	661-1244	10-JAN-92	25-AUG-92	
9114	UK .	FORT ROCK GENERAL STORE	R. ROADS 510 - 512	FORT ROCK	97735	Ira Dutcher	(503)	576-2388	16-JAN-92	15-JUN-92	27-APR-92
2400		FRENCHGLEN MERCANTILE -		FRENCHGLEN	97736	Malena Konek	(503)	493-2565	16-MAR-92	18-SEP-92	
11/5	CR	GILCHRIST SERVICE STATION	S. HWY. 97	GILCHRIST	97737	GilErnst	(503)	433-9511	19-MAR-92	26-AUG-92	
		GENERAL FARM SUPPLY, INC.	HIGHWAY 20 DOX (17	HINES	97738	C. Barry Zimmerman	(208)	888-5984	30-MAR-92		
		HINES FOOD MARKET	1ST & E STREET R. ROADS 510 - 512 "S. HWY. 97 HIGHWAY 20 HIGHWAY 20 BOX 647 105 N 4TH ST FOREST ROAD 2116 D 15746 BURGESS ROAD 51365 HWY. 97 51453 S. HWY. 97	HINES	97758	Gary D. Miller	(503)	573-6341	27-JAN-92	04-SEP-92	
10771	UK CD	AMERICAN PACIFIC PETRO/JE	105 N 41K SI	MADRAS	97739	John Gold	(503)	536-1207	21-JAN-92	11-MAY-92	
4330	LK CD	CRANE PRAIRIE RESORT	FUREST RUAD ZITO D	LA PINE	97739	Patrick Schatz	(503)	382-2787	23-JAN-92	01-001-92	
030	CD	JACKSON, PAUL E. LA PINE GAS FOR LESS	51345 BURGESS KUAD		91139	Paul E. Jackson	(503)	535-1441	15-JAN-92	02-SEP-92	
1000	~~	LA PINE GAS FOR LESS	51453 S. HWY. 97		91139	Uillie & Linde Oleen	(202)	433-9311	19-MAR-92	26-AUG-92	
0612	CP	IADINE RILAY CENTER	51425 HWY 97	LA PINE	07770	Capal Proven	(503)	220-2020 574-21/5	10-FEB-92	12-JUN-92	
07/6	CR	ADTHE MINAL CENTER	52530 HWY 97	LA PINC	07730		(503)	530-2145	10-FED-92	17-328-92	
742	CR	ROBINSON, ORREN	51571 HYW 97 / P.O. BOX 3		07730	Orren Robinson	(503)	536-2131	01-APK-92		
9013	CR	WICKIUP JUNCTION	17000 BURGESS ROAD		07730	Norman St Clair	(503)	536-22131	30-MAD-02	01-001-02	
8914	CR	BOB SMITH SERVICE	250 N 5TH	MADRAS	97741	Robert C Smith	(303)	550 ZETT	02-MAR-92	26-410-92	
7470	CR		40 NW 4TH STREET	MADRAS	97741	James G. IVV	(503)	475-2422	23-MAR-92	18-SEP-92	
5565	CR	KARDGARD SITE	NW HESS & HIGHWAY 26	MADRAS	97741	Lou Dobbins	(503)	475-2177	23-MAR-92	01-SEP-92	
5903	CR	KEN EDGMON, INC.	HIGHWAY 97 & M STREET	MADRAS	97741	Kenneth E. Edgmon	(503)	475-2436	31-MAR-92	29-SEP-92	
4262	CR	LEATHERS OIL CO.	158 5TH ST.	MADRAS	97741	Brent Leathers	(503)	661-1244	10-JAN-92	25-AUG-92	28-JAN-92
210	CR	MADRAS J & L TRUCK STOP &	992 SW HWY 97	MADRAS	97741	Gerald Barker	(503)	475-3541	13-JAN-92	24-SEP-92	
6705	CD	NODTH MADDAS SUCH	NORTH HWY. 97	MADRAS	97741	W.J. Wren	(503)	548-1035	10-JAN-92	21-SEP-92	
9973	CR		WARM SPRINGS STAR ROUTE	MADRAS	97741	Bob McInturff	(503)	581-1585	01-APR-92		
6748	CR	SOUTH MADRAS SHELL	622 FIFTH ST.	MADRAS	97741	W.J. Wren	(503)	548-1035	10-JAN-92	17-SEP-92	
8477	CR	SOUTH SIDE TEXACO	1094 S.W. HWY 97	MADRAS	97741	K. M. Utter	(503)	475-2934	27-FEB-92	28-SEP-92	
8892	CR	TIGER MART	1357 SW HWY 97	MADRAS	97741	Richard L. Allen	(503)	475-7127	10-JAN-92	30-SEP-92	
0477	un	OFFER OIL CO	178 SW 4TH ST	MADRAS	97741	Richard R. Utter	(503)	475-2934	20-MAR-92	01-001-92	
8478	CR	UTTER OIL CO BULK PLAN	229 N.W. BIRCH LANE	MADRAS	97741	Richard R. Utter	(503)	475-2934	20-MAR-92	01-0CT-92	
		CANNON'S TIRE CENTER	P.O. BOX 7	MITCHELL	97750	Robert Cannon			17-JAN-92	09-SEP-92	
		SCHNEE'S GROCERY & SERVIC	MAIN ST PO BOX 188	MITCHELL	97750	George M. Schnee	(503)	462-3459	08-JAN-92	20-MAY-92	
		PAULINA STORE	100 & MAIN ST.	PAULINA	97751	Ingeborg Brittner	(503)	477-3311	08-JAN-92	27-JUL-92	
		POST GENERAL STORE	HC 68 BOX 2600	POST	97752	Marvin Peters	(503)	477-3285	30-MAR-92		
		THE COUNTRY STORE	ROUTE 1, BOX 585	POWELL BUTTE	97753	Ronald W. Sloper	(503)	548-4328	02-MAR-92	25-AUG-92	
		ART'S PLACE	BUX 1845 PLR	PRINEVILLE	91154	John C. & Wilma L. Hansen	15070	117 1107	21-JAN-92		
		BOB'S PRINEVILLE EXXON	MAIN ST PO BOX 188 100 & MAIN ST. HC 68 BOX 2600 ROUTE 1, BOX 385 BOX 1845 PLR 240 E. 3RD 400208 LAMONTA ROAD	PRINEVILLE	91154	Robert Fox Sandra Gaylord	(503)	447-0093	23-MAR-92		
		CARSON OIL KAACARD LOCK	HARWOOD & LAMONTA ROAD &	PRINEVILLE	91124	Steve Hebener Shana Lee Crisp Lawrence W. & Mary Loar Sr. Richard Davis Gil Ernst Steve Koch Robert J. Nordby Penny Jacobson George Van Scoy Jeff & Wendy Coker Richard Becker Brent Leathers Ira Dutcher Malena Konek Gil Ernst C. Barry Zimmerman Gary D. Miller John Gold Patrick Schatz Paul E. Jackson Gil Ernst Willie & Linda Olson Carol Brewer Fred Morrow Orren Robinson Norman St Clair Robert C. Smith James G. Ivy Lou Dobbins Kenneth E. Edgmon Brent Leathers Gerald Barker W.J. Wren Bob McInturff W.J. Wren K. M. Utter Richard R. Utter Richard R. Utter Richard R. Utter Richard R. Utter Richard R. Utter Richard R. Schnee Ingeborg Brittner Marvin Peters Ronald W. Sloper John C. & Wilma L. Hansen Robert Fox Sandra Gaylord Geraldine Johnson	(202)	224-0200	23-JAN-92 11-MAR-92	17_050_02	
676	ψN	KAGANU LOOK	INTROOP & LAPORTA RUAD &	INTHE ATER	71134		(101)	44/-04/0	1 1 "PIAK" 74	11-3CF-76	

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FAC ID	REG	FAC NAME	ADDRESS 801 W. 3RD 301001 MCKAY RD COMBS FLAT ROAD E. OCHOCO HWY. & COMBS FL 480 LAMONTA ROAD GARDNER RD 402402 LAMONTA RD. 205 W. 3RD 1300 P.L.R. 341 E. THIRD ST. 398 WEST THIRD ST. 398 WEST THIRD ST. 516 S.W. 5TH 244 E ANTLER BLVD 2057 S. HWY 97 612 S. FIFTH ST. 722 N. 6TH 712 S. 5TH 1638 S. HWY 97 1362 S. 6TH 109 S. SIXTH ST. 111 NW 6TH 539 N. 6TH HIGHWAY 20 US HWY 20 & OAK THREEWIND SHOPPING CENTER 530 CASCADE FIR & CASCADE ST. 13300 HWY 20 CROOKED RIVER RANCH - PHA 8150 HWY. 97 NORTH 801 S.E. COURT RT. 1, BOX 531 1302 SOUTHGATE 1-84 EXIT 202 814 S.W. DORIAN 4314 WESTGATE 335 S.E. COURT 704 S.W. EMIGRANT 238 SW COURT 1304 S.W. DORION 212 S.W. DORION 213 S.W. EMIGRANT AVE. 1111 S.W. EMIGRANT 301 S.W. EMIGRANT	CITY	ZIP	CONTACT		PHONE	LOI	CA	APP
4288	CR	LEATHERS OIL CO.	801 W. 3RD	PRINEVILLE	97754	Brent Leathers		(503) 661-1266	10-101-02	25-4116-92	28-141-02
1369	CR	OCHOCO FUEL CO.	301001 MCKAY RD	PRINEVILLE	07754	Richard K lehman		(503) 667 7244	13-101-02	18-406-02	
7188	CR	OCHOCO LUMBER COMPANY	COMBS FLAT ROAD	PRINEVILLE	97754	Stuart 1 Shelk in		(503) 447 5012	16-MAD-02		
6804	CR	OCHOCO SHELL	E OCHOCO HUY & COMPS EL	DDINEVIILE	0775/	U I Uren		(503) 5/8-1035	10-148-92	17_CED_02	
8930	CR	OVERALL PETROLEUM CO		DRINEVILLE	0775/	W.J. WICH		(503) 548-1055	10-JAN-92	10-400-02	
10665	CR	PACIFIC PRIDE	GARDNER RD	PRINEVILLE	07754	ID & Twile Flenel		(503) 447-0581	10-FEB-92 01-A00-02	10-A00-92	
140	CR	PINE GROCERY	402402 LAMONTA RD	PRINEVILLE	97754	Barbara Rogers		(503) 447-7009	24-558-02	17-SED-02	
9091	CR	PRINEVILLE QUIK STOP	205 W. 3RD	PRINEVILLE	97754			()0) 447 0019	10-558-02	03-106-02	
2943	CR	PRINEVILLE RESERVOIR RESO	1300. P. L. R.	PRINEVILLE	97754	D.d. Overatt		(503) 447-7468	30-MAR-02	00 A08 72	
3107	CR	PUCKETT'S DISTRIBUTING	341 E. THIRD ST.	PRINEVILLE	97754	Sam Puckett		(503) 447-6807	30-MAR 72	06-007-92	
8480	CR	SAM'S TEXACO	398 WEST THIRD STREET	PRINEVILLE	97754	Richard & Utter		(503) 475-2934	20-MAR-92	01-007-92	
1222	CR	TERRY, HILLARD H. GAS FO	1170 MADRAS HY	PRINEVILLE	07754	Maxine Terry		(503) 4/3 2/34	31-MAD-02	01 00, JL	
6800	CR	THIRD STREET SHELL	550 W. THIRD ST	PRINEVILLE	97754	V.I. Uren		(503) 568-1035	04-FEB-02	17-950-02	08+141+03
2467	CR	BYRAMS CHEVRON, INC.	516 S.W. 5TH	REDMOND	97756	Robert W Byram		(503) 548-8315	23-MAR-02	28-SED-02	00 0/11 /5
8910	CR	CARSON OIL CO.	244 F ANTIER BLVD	REDMOND	97756	Sandra Gavlord		(503) 224-8500	23-148-92	11-SED-02	
9022	CR	FULL STOP	2057 S. HWY 97	REDMOND	97756	Jeff Abbott		(503) 382-3961	11-FFR-92	15-MAY-92	
8891	CR	PIONEER PUP	2310 NF HWY 97	REDMOND	97756	Lou Dobbins	÷	(503) 475-2177	23-MAR-02	01-SED-02	
6810	CR	PLUM FIERCE	612 S. FIFTH ST.	REDMOND	97756	W.J. Wren		(503) 548-1035	04-FFR-92	17-SEP-92	08-JAN-93
8403	CR	POLAR BEAR GAS & WASH	722 N. 6TH	REDMOND	97756	Mark Arnett		(503) 548-6424	30-JAN-92	22-SEP-92	00 0AN 75
4850	CR	REDMOND TEXACO CORNER STO	712 S. 5TH	REDMOND	97756	Justin King		(517) 371-5700	01-APR-92		
5328	CR	REDMOND TIGER MART	1638 S. HWY 97	REDMOND	97756	Dennis L. Stoll		(503) 362-5558	23-MAR-92	23-SEP-92	
5329	CR	REDMOND TRUCK SERVICE	1362 S. 6TH	REDMOND	97756	Shirley Anderson		(503) 222-1335	21-FFR-92		
6814	CR	SIXTH STREET SHELL	109 S. SIXTH ST.	REDMOND	97756	W.J. Wren		(503) 548-1035	04-FEB-92	17-SEP-92	
9863	CR	T-N-T	111 NW 6TH	REDMOND	97756	John Rvan		(503) 548-8517	30-MAR-92		
4849	CR	TEXACO FOOD MART	539 N. 6TH	REDMOND	97756	Norman Faulkner		(503) 548-1009	27-JAN-92	17-SEP-92	
6933	CR	RILEY STORE & GARAGE	HIGHWAY 20	RILEY	97758	Bennie D. Macomber		(619) 375-2682	27-MAR-92	01-SEP-92	
1059	CR	CHEVRON U.S.A., INC 97	US HWY 20 & OAK	SISTERS	97759	Ted W. Rogers		(503) 549-9193	20-MAR-92	21-SEP-92	
8088	CR	ROGERS MOUNTAIN MOBIL	THREEWIND SHOPPING CENTER	SISTERS	97759	Helmut Junge		•••••	26-FEB-92	24-SEP-92	
5332	CR	SISTERS GENERAL STORE	530 CASCADE	SISTERS	97759	Dennis L. Stoll		(503) 362-5558	23-MAR-92	23-SEP-92	
808	CR	SISTERS OIL CO.	FIR & CASCADE ST.	SISTERS	97759	Richard Davis		(503) 549-6811	23-MAR-92	01-0CT-92	
7995	CR	SUTTLE LAKE RESORT	13300 HWY 20	SISTERS	97759	Rich Mathis		(503) 595-6662	01-OCT-92	01-0CT-92	
9937	CR	CROOKED RIVER AUTOMOTIVE	CROOKED RIVER RANCH - PHA	CROOKED RIVE	97760	Odie Briley		(503) 548-5941	13-JAN-92	18-SEP-92	
1239	CR	TERREBONNE MARKET, INC.	8150 HWY. 97 NORTH	TERREBONNE	97760	Deryl J. Ferguson		(503) 548-2603	02-MAR-92	01-001-92	
9326	ER	8TH STREET CAR WASH & SER	801 S.E. COURT	PENDLETON	97801	Roy L. Comrie		(503) 276-1921	01-APR-92		
8097	ER	ARROWHEAD TRUCK PLAZA	RT. 1, BOX 531	PENDLETON	97801	George Bonbright		(503) 276-6666	05-FEB-92	24-SEP-92	
6230	ER	ASTRO #235	1302 SOUTHGATE	PENDLETON	97801	John Phimister		(503) 243-7899	09-JAN-92	21-SEP-92	
5874	ER	BARNHART PROPERTIES, INC.	I-84 EXIT 202	PENDLETON	97801	Floyd D. Lamberson		(503) 276-6709	10-JAN-92	13-MAY-92	
6085	ER	BONBRIGHT OIL	814 S.W. DORIAN	PENDLETON	97801	George E. Bonbright		(503) 276-6666	05-FEB-92	24-SEP-92	
1376	ER	CHEVRON U.S.A., INC 91	4314 WESTGATE	PENDLETON	97801	George E. Bonbright		(503) 276-6666	10-FEB-92	24-SEP-92	
1327	ER	DAVE'S CHEVRON FOOD MART	335 S.E. COURT	PENDLETON	97801	David & Toni Walters		(503) 276-3610	08-JAN-92	28-MAY-92	10-JUN-92
7076	ER	DELMER-CRAWFORD SHELL OIL	300 PATAWA RD. S.E.	PENDLETON	97801	Darrell V. Gemmell		(503) 362-3939	27-MAR-92		
6510	ER	EASTSIDE BONOCO	903 S.E. COURT	PENDLETON	97801	George E. Bonbright		(503) 276-6666	05-FEB-92	24-SEP-92	
7394	ER	FAST GAS/BONBRIGHT OIL CO	1704 S.W. EMIGRANT	PENDLETON	97801	George E. Bonbright		(503) 276-6666	05-FEB-92	24-SEP-92	
99 07	ER	HARTS SERVICE CENTER	238 SW COURT	PENDLETON	97801	Steve Hart			20-MAR-92	01-0CT-92	
10215	ER	HERD'S HANDY MART	1304 S.W. DORION	PENDLETON	97801	Bea Herd		(503) 276-4519	26-MAR-92	30-SEP-92	
82	ER	HOLEMAN, EMILE M	212 S.W. DORION ROAD	PENDLETON	97801	Emile M Holeman		(503) 276-5373	25-MAR-92	16-SEP-92	
8903	ER	INDIAN HILLS TEXACO	313 NYE	PENDLETON	97801	Darrell V. Gemmell		(503) 362-3939	30-MAR-92	28-SEP-92	
1745	ER	PENDLETON	1413 SW EMIGRANT AVE.	PENDLETON	97801	Donald W. Rognon		(801) 734-6400	28-FEB-92		
6156	ER	PENDLETON GRAIN GROWERS	1111 S.W. DORION	PENDLETON	9 7801	Nathan Crowther		(503) 276-7611	30-MAR-92	28-SEP-92	
6151	ER	PENDLETON GRAIN GROWERS,	1013 S.W. EMIGRANT	PENDLETON	97801	Nathan Crowther		(503) 276-7611	30-MAR-92	28-SEP-92	

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115 E.F. PENDLETON SELL 712 S.E. COURT PENDLETON 97801 Don Russell (503) 27.4-664 53.4-8.47-92 27.5-52-92 104 E.F. ROMO-DF REGE ROMO-DF REGE (503) 27.4-664 55.7-644 53.7-644 53.7-644 53.7-644 53.7-644 53.7-644 53.7-644 53.7-644 53.7-644 53.7-7-24 31.7-8-7-22 3.7-52-92 3.7-52-92 3.7-52-92 3.7-52-92 3.7-52-92 3.7-644 53.7-722 3.7-644 53.7-722 3.7-647-92 1.7-646-92 1.7-646-92 1.7-646-92 1.7-646-92 1.7-646-92 1.7-646-92 1.7-647-92	FAC ID REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT	PHONE	LOI	CA	APP
6502 ER ROUND-UP BONCCO 1004 S.W. COURT PENDLETON 97801 George E. Bonbright (503) 276-6666 05-FEB-92 24-SEP-92 1446 ER ROUND-UP COOP DUSTERS, IN PENDLETON MUNICIPAL AIRPO PENDLETON 97801 Warn Kube (503) 276-1315 16-ARP-92 10076 ER SUNSHINE GAS 'N WASH 816 SOUTHGATE PENDLETON 97801 Vern Kube (503) 276-1921 31-MAR-92 18-AUG-92 5276 ER WESTGATE SERVICE STATION 1852 S.W. COURT PENDLETON 97801 Roy L. Comrie (503) 276-1921 31-MAR-92 18-AUG-92 6537 ER WESTGATE SERVICE STATION 1852 S.W. COURT PENDLETON 97810 Roy L. Comrie (503) 276-1921 18-AUG-92 18-AUG-92 10256 ER ADAMS CARDLOCK HALE & MORRISON ADAMS 97812 Don Russeil (503) 481-4876 27-JAN-92 21-SEP-92 8611 ER ARLINGTON SHELL 401 LOCUST ARLINGTON 97812 Don Russeil (503) 454-2971 17-JAN-92 21-SEP-92 8679 ER GRONQUIST TEXACO LOCUST & BEECH STREETS ARLINGTON 97812 Don Russeil (503) 454-2971 25-AMR-92 12-SEP-92 10717 ER ATHENA CARDLOCK SR & CURRANT (SW CORNER) ATHEN	4158 ER	PENDLETON SHELL	712 S.E. COURT	PENDLETON	97801	Don Russell	(503) 481-4876	30-MAR-92	17-SEP-92	
1446 ER ROUND-UP CROP DUSTERS, IN PENDLETON MUNICIPAL AIRPO PENDLETON 97801 Betty Shoun (503) 276-3115 16-ARR-92 10076 ER SUNSHINE GAS 'N WASH B16 SOUTHGATE PENDLETON 97801 Norn Kube (503) 276-1921 13-ARR-92 6537 ER WESTSIDE MOBIL SERVICE 1852 WESTGATE PENDLETON 97801 Roy L. Comrie (503) 276-1921 18-AUG-92 10256 ER ADAMS CARDLOCK HALE & MORISON ADAMS 97801 Roy L. Comrie (503) 276-1921 18-AUG-92 10256 ER ADAMS CARDLOCK HALE & MORISON ADAMS 97812 Doug Hattenhauer 18-FEB-92 28-AUG-92 111 FR ARLINGTON BULK PLANT HWY 19 SOUTH ARLINGTON 97812 Don Russell (503) 454-270 17-JAN-92 17-SEP-92 10717 ER ARLINGTON 100 BEECH STREETS ARLINGTON 97813 George J. Kaup (503) 276-3361 16-MAR-92 12-JUN-92 10717 ER ARTHENA CARDLOCK 3RD & CURRANT (SW CORNER) ATHENA 97813 George J. Kaup (503) 566-3831 16-MAR-92 12-JUN-92 10717 ER ARLE & MARKET CHEVRON 100 BEECH STREETS ARLINGTON 97813 George J. Kaup (503) 566-3841 19-ARA-92 2-SEP-	6502 ER	ROUND-UP BONOCO	1004 S.W. COURT	PENDLETON	97801	George E. Bonbright	(503) 276-6666	05-FEB-92	24-SEP-92	
10076 ER SUNSNINE GAS 'N WASH 816 SOUTHGATE PENDLETON 97801 Vern Kube (503) 278-009 22-JAN-92 24-SEP-92 5276 ER WESTGATE SERVICE 1852 KESTGATE PENDLETON 97801 Roy L. Comrie (503) 276-1921 31-MAR-92 18-AUG-92 10256 ER ADAMS GAMS 97801 Sam Byrnes (503) 276-1921 31-MAR-92 18-AUG-92 10256 ER ADAMS CARDLOCK HALE & MORRISON ADAMS 97811 Som Byrnes (503) 276-1921 31-MAR-92 18-AUG-92 10256 ER ADAMS CARDLOCK HALE & MORRISON ADAMS 97812 Doug Hattenhauer 18-FEB-92 28-AUG-92 17-SEP-92 1717 ER ARLINGTON BULK PLANT MAISTEEL ADI LOCUST ARLINGTON 97812 Pannejutist (503) 454-2970 17-SEP-92 17-SEP-92 8058 ER CLOUGH CHEVRON 100 BEECH STREET ARLINGTON 97812 Randall Clough (503) 464-2911 25-MAR-92 17-SEP-92 10	1446 ER	ROUND-UP CROP DUSTERS, IN	PENDLETON MUNICIPAL AIRPO	PENDLETON	97801	Betty Shoun	(503) 276-3115	16-APR-92		
5276 ER HESTGATE SERVICE STATION 1852 WESTGATE PENDLETON 97801 Roy L. Comrie (503) 276-1921 31-MAR-92 18-AUG-92 10256 ER ADAMS CARDLOCK HALE & MORRISON ADAMS 97810 Sam Byrnes (503) 276-1921 18-AUG-92 10256 ER ADAMS CARDLOCK HALE & MORRISON ADAMS 97810 Sam Byrnes (503) 276-1921 18-AUG-92 8411 ER ARLINGTON BULK PLANT HW 19 SOUTH ARLINGTON 97812 Dong Hattenhauer 18-E8P-92 28-AUG-92 1717 ER ARLINGTON SULK PLANT HW 19 SOUTH ARLINGTON 97812 Don Russell (503) 454-2790 17-JAN-92 1-SEP-92 8058 ER CLOUGH CHEVRON 100 BEECH STREET ARLINGTON 97812 Bonnis Gronquist (503) 454-2790 17-JAN-92 12-SEP-92 10717 ER ATHENA CARDLOCK 3RD & CURRANT (SW CORNER) ATHENA 97813 George J. Kaup (503) 566-3814 19-MAR-92 12-SEP-92 10717 ER RALBAC ROLLCOC, (KE 3RD & CURRENT (NE CORNER) ATHENA 97813 George J. Kaup (503) 566-3814 19-MAR-92 12-JUN-92 10717 ER RALBAC RULK CORRAL -515 CAMPBELL BAKER 97814 Donald D. and Lila Malor	10076 ER	SUNSHINE GAS 'N WASH	816 SOUTHGATE	PENDLETON	97801	Vern Kube	(503) 278-0099	22-JAN-92	24-SEP-92	
0537 EX WESTSIDE MOBIL SERVICE 1852 S.W. COURT PENDLETON 97801 Roy L. Comrte (503) 276-3361 16-MaR-92 10255 EX ARLINGTON BULK PLANT HALE & MORRISON ADAMS 97810 Sam Byrnes (503) 276-3361 16-MaR-92 110256 EX ARLINGTON SHELL 401 LOCUST ARLINGTON 97812 Doug Hattenhauer 18-FEB-92 28-AUG-92 1717 EX ARLINGTON SHELL 401 LOCUST ARLINGTON 97812 Donnis Gronquist (503) 454-2790 17-JAN-92 21-SEP-92 8058 EX CLOUGH CHEVRON 100 BEECH STREET ARLINGTON 97813 Don Russell (503) 454-2790 17-JAN-92 21-SEP-92 8078 EX GROMQUIST TEXACO LOCUST & BEECH STREETS ARLINGTON 97813 Don Russell (503) 26-3361 16-MAR-92 17-SEP-92 10717 EX ATHENA CARDLOCK 3RD & CURRANT (SW CORNER) ATHENA 97813 Sam Byrnes (503) 566-381 13-JAN-92 01-JUN-92 10717 EX FREDS MARKET CHEVRON 5TH & MAIN ATHENA 97813 Charles P. Good (503) 566-381 13-JAN-92 01-JUN-92 10737 EX BAKER CITY CONCCO 275 E CAMPBELL BAKER 97814 Lonand D. and Lila M Valdrop	5276 ER	WESTGATE SERVICE STATION	1852 WESTGATE	PENDLETON	97801	Roy L. Comrie	(503) 276-1921	31-MAR-92	18-AUG-92	
NO256 EK ADARS	0537 EK	WESTSIDE MOBIL SERVICE	1852 S.W. COURT	PENDLETON	97801	Roy L. Comrie	(503) 276-1921	44 445 00	18-AUG-92	
0411 ER ARLINGTON BOLK PLANT HWT 19 SUCH ARLINGTON 97812 bodg Hattenhauer 18-FEB-92 28-AUG-92 1717 ER ARLINGTON SHELL 401 LOCUST ARLINGTON 97812 bodg Hattenhauer (503) 454-2970 17-JAN-92 27-SEP-92 8058 ER CLOUGH CHEVRON 100 BEECH STREET ARLINGTON 97812 Don Russell (503) 454-2970 17-JAN-92 21-SEP-92 8079 ER GRONQUIST TEXACO LOCUST & BEECH STREETS ARLINGTON 97812 Donn's Gronquist (503) 454-2911 25-MAR-92 12-JUN-92 10717 ER ATHENA CARDLOCK 3RD & CURRANT (SW CORNER) ATHENA 97813 Sam Byrnes (503) 266-3811 13-JAN-92 17-SEP-92 236 ER FRED MARKET CHEVRON 5TH & MAIN ATHENA 97813 George J. Kaup (503) 566-3831 13-JAN-92 24-SEP-92 9748 ER BAKER CITY CONOCO 275 E CAMPBELL BAKER 97814 Donald D. and Lila M Waldrop 16-MAR-92 20-SEP-92 3753 ER BAKER TRUCK CORRAL -515 CAMPBELL BAKER 97814 Ralph E. Poole (503) 523-4581 27-JAN-92 18-MAG-92 186 ER BAKER VALLEY CHEVRON -1400 MAIN ST. BAKER 97814 Robert L. Black (503) 523-4581 27-JAN-92 18-MAG-92 186 ER BAKER VALLEY CHEVRON 10 STREE	10200 EK	ADAMS LAKULULK	HALE & MURKISUN	ADAMS	97810	Sam Byrnes	(503) 276-3361	16-MAR-92	78 440 07	
1117 EK AKEINGTON SHELL 401 ECCST AKEINGTON 97812 bon Rüssett (503) 451-4076 27-3AR-92 12-5EP-92 8058 EK CLOUGH CHEVRON 100 BEECH STREET AKLINGTON 97812 Randall Clough (503) 454-2911 25-MAR-92 12-JUN-92 10717 EK ATHENA CARDLOCK 3RD & CURRANT (SW CORNER) ATHENA 97813 Sam Byrnes (503) 454-2911 25-MAR-92 12-JUN-92 236 EK FREDS MARKET CHEVRON 5TH & MAIN ATHENA 97813 George J. Kaup (503) 566-3811 13-JAN-92 01-JUN-92 8180 ER ROL MORRISON OIL CO., (KE STR & CURRENT (NE CORNER) ATHENA 97813 George J. Kaup (503) 566-3811 13-JAN-92 01-JUN-92 8180 ER ROL MORRISON OIL CO., (KE STR & CURRENT (NE CORNER) ATHENA 97813 George J. Kaup (503) 566-3811 13-JAN-92 01-JUN-92 8180 ER RAKER CITY CONOCO 275 E CAMPBELL BAKER 97814 Donald D. and Lila M Waldrop 16-MAR-92 20-SEP-92 3753 ER BAKER VALLEY CHEVRON -515 CAMPBELL BAKER 97814 Robert L. Black (503) 523-4575 16-JAN-92 22-SEP-92 186 ER BAKER VALLEY CHEVRON -102 MAIN ST. BAKER 97814 Robert L. Black (503) 523	0411 EK 1717 ED	ARLINGTON BULK PLANT	ANT TO SUUTH	ARLINGTON	97812	Doug Hattennauer	15075 /04 /074	18-FEB-92	28-AUG-92	
8879ERCRONAUISTTEXACOLOCUST & BEECH STREETSARLINGTON97812Kandart Clough(503)434-279017-3AR-9212-3E-99210717ERATHENA CARDLOCK3RD & CURRANT (SW CORNER)ATHENA97812Dennis Gronquist(503)454-291125-MaR-9217-SEP-92236ERFREDS MARKET CHEVRON5TH & MAINATHENA97813George J. Kaup(503)566-383113-JAN-9201-JUN-928180ERROL MORRISON OIL CO., (KE3RD & CURRENT (NE CORNER)ATHENA97813Charles P. Good(503)566-384419-MAR-9224-SEP-929748ERBAKER CITY CONOCO275E CAMPBELLBAKER97814Donald D. and Lila M Waldrop16-MAR-9230-SEP-923753ERBAKER TUCK CORRAL-515CAMPBELLBAKER97814Ralph E. Poole(503)523-458127-JAN-9218-AUG-926229ERBLACK DISTRUBING, INC.2150BROADWAYBAKER97814Robert L. Black(503)523-457516-JAN-9222-SEP-924193ERCOOP SUPPLY10STREET/HWY 30 - ROUTEBAKER97814Durand Brewster(503)523-457516-JAN-9224-SEP-922353EREMERY, WM. M.2500CEDAR ST.BAKER97814Murand Brewster(503)523-457516-JAN-9222-SEP-9224193ERCOOP SUPPLY10STREET/HWY 30 - ROUTEBAKER97814Durand Brewster(503)<	8058 EP	CLOUCH CHEVRON	100 DEECU STREET	ARLINGTON	07012	Pandall Cloudh	(202) 401-40/0	27-JAN-92	1/-SEP-92	
10717 ER ATHENA CARDLOCK 3RD & CURRANT (SW CORNER) ATHENA 97812 Sam Byrnes (503) 276-3361 16-MAR-92 17-sep-92 236 ER FREDS MARKET CHEVRON 5TH & MAIN ATHENA 97813 George J. Kaup (503) 266-3831 13-JAN-92 01-JUN-92 8180 ER ROL MORRISON OIL CO., (KE 3RD & CURRENT (NE CORNER) ATHENA 97813 Charles P. Good (503) 566-3844 19-MAR-92 24-sep-92 9748 ER BAKER CITY CONOCO 275 E CAMPBELL ST BAKER 97814 Donald D. and Lila M Waldrop 16-MAR-92 10-MAR-92 05-JUN-92 3753 ER BAKER TRUCK CORRAL -515 CAMPBELL BAKER 97814 Ralph E. Poole (503) 523-4581 27-JAN-92 18-AUG-92 186 ER BAKER VALLEY CHEVRON -4702 MAIN ST. BAKER 97814 Ralph E. Poole (503) 523-4575 16-JAN-92 22-sep-92 186 ER BAKER VALLEY CHEVRON -4702 MAIN ST. BAKER 97814 Robert L. Black (503) 523-4575 16-JAN-92 22-sep-92 4193 ER COOP SUPPLY 10 STREET/HWY 30 - ROUTE BAKER 97814 Durand Brewster (503) 523-4575 16-JAN-92 22-sep-92 2535 ER EMERY, WM. M. 2500 CEDAR ST. BAKER <td>8879 FR</td> <td>GRONOLITST TEXACO</td> <td>LOCUST & REECH STREETS</td> <td>ARITNGTON</td> <td>07812</td> <td>Nandali Clough Dennis Gronquist</td> <td>(503) 454-2011</td> <td>25-WAR-02</td> <td>12- 1111-02</td> <td></td>	8879 FR	GRONOLITST TEXACO	LOCUST & REECH STREETS	ARITNGTON	07812	Nandali Clough Dennis Gronquist	(503) 454-2011	25-WAR-02	12- 1111-02	
236 ER FREDS MARKET CHEVRON 514 MAIN ATHENA 97813 Gorge J. Kaup (503) 566-3831 13 JAN 92 01-JUN 92 8180 ER ROL MORRISON OIL CO., (KE 3RD & CURRENT (NE CORNER) ATHENA 97813 Gorge J. Kaup (503) 566-3831 13 JAN 92 01-JUN 92 9748 ER BAKER CITY CONOCO 275 E CAMPBELL ST BAKER 97814 Donald D. and Lila M Valdrop 16-MAR-92 24-SEP-92 3753 ER BAKER TRUCK CORRAL -515 CAMPBELL BAKER 97814 Ralph E. Poole (503) 523-4581 27-JAN-92 18-AUG-92 186 ER BAKER VALLEY CHEVRON -1702 MAIN ST. BAKER 97814 Robert L. Black (503) 523-4581 27-JAN-92 18-AUG-92 6229 ER BLACK DISTRUBING, INC. 2150 BROADWAY BAKER 97814 Robert L. Black (503) 523-4575 16-JAN-92 22-SEP-92 4193 ER COOP SUPPLY 10 STREET/HWY 30 - ROUTE BAKER 97814 Morand Brewster (503) 523-4794 08-JAN-92 19-AUG-92 2353 ER EMERY, WM. M. 2500 CEDAR ST. BAKER 97814 Morand H. Hartvig (503) 295-2668 01-APR-92 6112 ER FRANKO #75 CORNER OF CAMPBELL & BAKER BAKER	10717 FR	ATHENA CAPOLOCK	3PD & CURRANT (SU CORNER)	ATHENA	07813	Sam Byrnee	(503) 434 2911	16-MAR-92	17-560-02	
8180 ERROL MORRISON OIL CO., (KE 3RD & CURRENT (NE CORNER) ATHENA97813 Charles P. Good(503) 565 Job	236 FR	FREDS MARKET CHEVRON	STH & MAIN	ΔΤΗΕΝΑ	07813	George J Kaun	(503) 566-3831	13-14N-02	A1-JON-02	
9748 ERBAKER CITY CONDCO275 E CAMPBELL STBAKER97814 Donald D. and Lila M Waldrop16-MAR-9230-SEP-923753 ERBAKER TRUCK CORRAL-515 CAMPBELLBAKER97814 Ralph E. Poole(503) 523-458121-JAN-9205-JUN-92186 ERBAKER VALLEY CHEVRON-4702 MAIN ST.BAKER97814 William, Jr. Howe(503) 523-458127-JAN-9218-JUN-926229 ERBLACK DISTRUBING, INC.2150 BROADWAYBAKER97814 Robert L. Black(503) 523-457516-JAN-9222-SEP-924193 ERCOOP SUPPLY10 STREET/HWY 30 - ROUTEBAKER97814 Durand Brewster(503) 523-772410-FEB-9224-SEP-922353 EREMERY, WM. M.2500 CEDAR ST.BAKER97814 Wm. M. Emery(503) 523-454908-JAN-9219-AUG-926112 ERFRANKO #75CORNER OF CAMPBELL & BAKER97814 Donald H. Hartvig(503) 295-266801-APR-924091 ERGAS AND SNACK2212 10TH STREETBAKER97814 Marla J. Gardner(208) 377-002401-APR-925248 ERGENERAL FARM SUPPLY, INC.879 ELM ST.BAKER97814 C. Barry Zimmerman(208) 888-598430-MAR-92	8180 FR	ROL MORRISON OIL CO. (KE	3RD & CURRENT (NE CORNER)	ATHENA	07813	Charles P Good	(503) 566-3844	10-MAR-02	24-SED-02	
3753 ER BAKER TRUCK CORRAL -515 CAMPBELL BAKER 97814 Ralph E. Poole (503) 889-3128 21-JAN-92 05-JUN-92 186 ER BAKER VALLEY CHEVRON -1702 MAIN ST. BAKER 97814 Ralph E. Poole (503) 523-4581 27-JAN-92 18-JUN-92 6229 ER BLACK DISTRUBING, INC. 2150 BROADWAY BAKER 97814 Robert L. Black (503) 523-4581 27-JAN-92 18-AUG-92 4193 ER COOP SUPPLY 10 STREET/HWY 30 - ROUTE BAKER 97814 Durand Brewster (503) 523-7724 10-FEB-92 24-SEP-92 2353 ER EMERY, WM. M. 2500 CEDAR ST. BAKER 97814 Durand Brewster (503) 523-7724 10-FEB-92 24-SEP-92 6112 ER FRANKO #75 CORNER OF CAMPBELL & BAKER 97814 Donald H. Hartvig (503) 295-2668 01-APR-92 4091 ER GAS AND SNACK 2212 10TH STREET BAKER 97814 Marla J. Gardner (208) 377-0024 01-APR-92 28-SEP-92 5248 ER GENERAL FARM SUPPLY, INC. 879 ELM ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	9748 FR	BAKER CITY CONOCO	275 E CAMPRELL ST	RAKER	97814	Donald D. and Lila M. Waldron	()037 500 5044	16-MAR-92	30-SEP-92	
186 ER BAKER VALLEY CHEVRON -1702 MAIN ST. BAKER 97814 William, Jr. Howe (503) 523-4581 27-JAN-92 18-AUG-92 6229 ER BLACK DISTRUBING, INC. 2150 BROADWAY BAKER 97814 William, Jr. Howe (503) 523-4581 27-JAN-92 18-AUG-92 4193 ER COOP SUPPLY 10 STREET/HWY 30 - ROUTE BAKER 97814 Durand Brewster (503) 523-4575 16-JAN-92 22-SEP-92 2353 ER EMERY, WM. M. 2500 CEDAR ST. BAKER 97814 Wm. M. Emery (503) 523-4949 08-JAN-92 19-AUG-92 6112 ER FRANKO #75 CORNER OF CAMPBELL & BAKER 97814 Donald H. Hartvig (503) 295-2668 01-APR-92 4091 ER GAS AND SNACK 2212 10TH STREET BAKER 97814 Marla J. Gardner (208) 377-0024 01-APR-92 28-SEP-92 5248 ER GENERAL FARM SUPPLY, INC. 879 ELM ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	3753 ER	BAKER TRUCK CORRAL -	-515 CAMPBELL	BAKER	97814	Ralph F. Poole	(503) 889-3128	21-JAN-92	0500-92	
6229 ER BLACK DISTRUBING, INC. 2150 BROADWAY BAKER 97814 Robert L. Black (503) 523-4575 16-JAN-92 22-SEP-92 4193 ER COOP SUPPLY 10 STREET/HWY 30 - ROUTE BAKER 97814 Durand Brewster (503) 523-4575 16-JAN-92 22-SEP-92 2353 ER EMERY, WM. M. 2500 CEDAR ST. BAKER 97814 Wm. M. Emery (503) 523-4949 08-JAN-92 19-AUG-92 6112 ER FRANKO #75 CORNER OF CAMPBELL & BAKE 97814 Donald H. Hartvig (503) 295-2668 01-APR-92 4091 ER GAS AND SNACK 2212 10TH STREET BAKER 97814 Marla J. Gardner (208) 377-0024 01-APR-92 28-SEP-92 5248 ER GENERAL FARM SUPPLY, INC. 879 ELM ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	186 ER	BAKER VALLEY CHEVRON	-1702 MAIN ST.	BAKER	97814	William, Jr. Nowe	(503) 523-4581	27-JAN-92	18-AUG-92	
4193 ER COOP SUPPLY 10 STREET/HWY 30 - ROUTE BAKER 97814 Durand Brewster (503) 523-7724 10-FEB-92 24-SEP-92 2353 ER EMERY, WM. M. 2500 CEDAR ST. BAKER 97814 Durand Brewster (503) 523-7724 10-FEB-92 24-SEP-92 6112 ER FRANKO #75 CORNER OF CAMPBELL & BAKE BAKER 97814 Donald H. Hartvig (503) 295-2668 01-APR-92 4091 ER GAS AND SNACK 2212 10TH STREET BAKER 97814 Marla J. Gardner (208) 377-0024 01-APR-92 28-SEP-92 5248 ER GENERAL FARM SUPPLY, INC. 879 ELM ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	6229 ER	BLACK DISTRUBING, INC.	2150 BROADWAY	BAKER	97814	Robert L. Black	(503) 523-4575	16-JAN-92	22-SEP-92	
2353 ER EMERY, WM. M. 2500 CEDAR ST. BAKER 97814 Wm. M. Emery (503) 523-4949 08-JAN-92 19-AUG-92 6112 ER FRANKO #75 CORNER OF CAMPBELL & BAKE BAKER 97814 Donald H. Hartvig (503) 295-2668 01-APR-92 4091 ER GAS AND SNACK 2212 10TH STREET BAKER 97814 Marla J. Gardner (208) 377-0024 01-APR-92 5248 ER GENERAL FARM SUPPLY, INC. 879 ELM ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	4193 ER	COOP SUPPLY	10 STREET/HWY 30 - ROUTE	BAKER	97814	Durand Brewster	(503) 523-7724	10-FEB-92	24-SEP-92	
6112 ER FRANKO #75 CORNER OF CAMPBELL & BAKE BAKER 97814 Donald H. Hartvig (503) 295-2668 01-APR-92 4091 ER GAS AND SNACK 2212 10TH STREET BAKER 97814 Maria J. Gardner (208) 377-0024 01-APR-92 28-SEP-92 5248 ER GENERAL FARM SUPPLY, INC. 879 ELM ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	2353 ER	EMERY, WM. M.	2500 CEDAR ST.	BAKER	97814	Wm. M. Emery	(503) 523-4949	08-JAN-92	19-AUG-92	
4091 ER GAS AND SNACK 2212 10TH STREET BAKER 97814 Maria J. Gardner (208) 377-0024 01-APR-92 28-SEP-92 5248 ER GENERAL FARM SUPPLY, INC. 879 ELM ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	6112 ER	FRANKO #75	CORNER OF CAMPBELL & BAKE	BAKER	97814	Donald H. Hartvig	(503) 295-2668	01-APR-92		
5248 ER GENERAL FARM SUPPLY, INC. 879 ELM ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	4091 ER	GAS AND SNACK	2212 10TH STREET	BAKER	97814	Marla J. Gardner	(208) 377-0024	01-APR-92	28-SEP-92	
	5248 ER	GENERAL FARM SUPPLY, INC.	879 ELM ST.	BAKER	97814	C. Barry Zimmerman	(208) 888-5984	30-MAR-92		
4056 ER GENERAL FARM SUPPLY, INC. 2975 TENTH ST. BAKER 97814 C. Barry Zimmerman (208) 888-5984 30-MAR-92	4056 ER	GENERAL FARM SUPPLY, INC.	2975 TENTH ST.	BAKER	97814	C. Barry Zimmerman	(208) 888-5984	30-MAR-92		
1146 ER GILES, DON 496 CAMPBELL ST. BAKER 97814 Donald Q. Giles (503) 523-7822 01-APR-92 21-SEP-92	1146 ER	GILES, DON	496 CAMPBELL ST.	BAKER	97814	Donald Q. Giles	(503) 523-7822	01-APR-92	21-SEP-92	
10141 ER OREGON TRAIL WEST RV PARK RICHLAND INTERCHANGE I-84 BAKER 97814 Don G. sheppard (503) 523-3988 10-JAN-92 22-JUN-92	10141 ER	OREGON TRAIL WEST RV PARK	RICHLAND INTERCHANGE 1-84	BAKER	97814	Don G. Sheppard	(503) 523-3988	10-JAN-92	22-JUN-92	
248 ER SHARON OIL OF BAKER CITY 1706 CAMPBELL STREET BAKER 97814 Robert L. Black (503) 523-4575 13-JAN-92 22-SEP-92	248 ER	SHARON OIL OF BAKER CITY	1706 CAMPBELL STREET	BAKER	97814	Robert L. Black	(503) 523-4575	13-JAN-92	22-SEP-92	
1606 ER TEXACO FOODMART 500 CAMPBELL BAKER 97814 Donald Q. Giles (503) 523-7822 22-JAN-92 21-SEP-92	1606 ER	TEXACO FOODMART	500 CAMPBELL	BAKER	97814	Donald Q. Giles	(503) 523-7822	22-JAN-92	21-SEP-92	
648 ER INTANGLE FARM SUPPLI, INC EAST HIGHWAY SU BAKER 97814 Wm. M. Emery (503) 523-4949 U8-JAN-92 19-AUG-92	048 EK 499/ ED	INIANGLE FARM SUPPLY, INC	EAST HIGHWAY SU	BAKER	97814	WM. M. Emery	(503) 523-4949	08-JAN-92	19-AUG-92	
7134 ED ANISTIN VILL PRODUCTS 917 AND PLACE BAKER 97814 RODERT L. SLACK (203) 525-4575 16-JAN-92 7134 ED ANISTIN VALUE 1012 10 10 10 10 10 10 10 10 10 10 10 10 10	0004 EK 7174 ED	AUSTIN DOUSE	YIN AND PLACE	BAKER	97014	Robert L. Black	(203) 523-4575	16-JAN-92	11 000 00	27 UU 02
700 ED BARDWALL EVVOL 101 S E EDOLT D'ALLES 97617 RODER L. DEUDERE (503) 446-2567 27-3AN-92 71-3UN-92 27-3UL-92 7070 ED BARDWALL EVVOL 101 S E EDOLT D'ADDWALL O'RELE (503) 446-2567 27-3AD-93 20-5EN-92	7070 ER	ROADDWAN EVVON	101 S E EDONT	DATES	07818	lames C Hubbard	(303) 440-2301	27-JAN-92 17-NAD-02	30-ccb.02	27-30L-92
For boardina Exam 101 3-L. ROM BOARDMAN 77610 James C. RODALU (503) 40(-3430 17 MAK-72 30-SEP-22	5066 ED	BOARDHAN TEXACO		BOARDHAN	07818	Doug Mattanhauan	(202) 40(-2420	19-550-02	20-SEP-92	
2/3 ED DEUEY (SUEVENN 101 N MAIN BOADDHAN 97615 DOUG HAILENHOUE) 10°FED 72 27°5EP 92	266 ER	DEUEY/S CHEVRON	101 N MAIN	BOARDHAN	07818	Frank Rates	(503) (81-0235	28-FED-92	27-SEP-92	
8882 FR RUSSEL OT (CRDLOCK TAURELLANE ROARDMAN 97818 DON RUSSEL] (503) 481-4876 27-14N-02 17-5EP-02	8882 FR	RUSSELL OT CARDLOCK	LAUREL LANE	BOARDMAN	97818	Don Russell	(503) 481-4876	27-14N-92	17-SEP-92	
4188 ER RUSSELL OIL CO. 101 S.W. FRONT BOARDMAN 97818 Vern Russell (503) 481-4876 13-JAN-92 11-MAY-92	4188 ER	RUSSELL OIL CO.	101 S.W. FRONT	BOARDMAN	97818	Vern Russell	(503) 481-4876	13-JAN-92	11-MAY-92	
4772 ER JACKSON MINI STATION 132 N. WASHINGTON CANYON CITY 97820 Gregory Jackson (503) 575-1348 17-JAN-92 20-MAY-92	4772 ER	JACKSON MINI STATION	132 N. WASHINGTON	CANYON CITY	97820	Gregory Jackson	(503) 575-1348	17-JAN-92	20-MAY-92	
10860 ER JACKSON OIL TANK FARM INC 131 N WASHINGTON ST CANYON CITY 97820 Gregory Jackson (503) 575-1348 17-JAN-92 20-MAY-92	10860 ER	JACKSON OIL TANK FARM INC	131 N WASHINGTON ST	CANYON CITY	97820	Gregory Jackson	(503) 575-1348	17-JAN-92	20-MAY-92	
1990 ER JACKSON OIL, INC. PLANT C 133 N. WASHINGTON CANYON CITY 97820 Gregory Jackson (503) 575-1348 17-JAN-92 20-MAY-92	1990 ER	JACKSON OIL, INC. PLANT C	133 N. WASHINGTON	CANYON CITY	97820	Gregory Jackson	(503) 575-1348	17-JAN-92	20-MAY-92	
1426 ER TILL'S MOBIL 145 S. CANYON BLVD. CANYON CITY 97820 Ferris G. Hill (503) 575-0292 30-MAR-92	1426 ER	TILL'S MOBIL	145 S. CANYON BLVD.	CANYON CITY	97820	Ferris G. Hill	(503) 575-0292	30-MAR-92		
1216 ER CONDON TEXACO 205 E. WALNUT CONDON 97823 Carleton E. Cathcart (503) 384-2646 25-MAR-92 01-0CT-92	1216 ER	CONDON TEXACO	205 E. WALNUT	CONDON	97823	Carleton E. Cathcart	(503) 384-2646	25-MAR-92	01-OCT-92	
1472 ER COONEY'S 421 S. MAIN CONDON 97823 Peggie Flatt (503) 384-2292 23-MAR-92	1472 ER	COONEY'S	421 S. MAIN	CONDON	97823	Peggie Flatt	(503) 384-2292	23-MAR-92		
5323 ER FATLANDS, INC. 110 MAIN ST. CONDON 97823 Thomas Fatland (503) 384-2131 08-JAN-92 19-AUG-92	5323 ER	FATLANDS, INC.	110 MAIN ST.	CONDON	97823	Thomas Fatland	(503) 384-2131	08-JAN-92	19-AUG-92	
166 ER SCHREINER'S CHEVRON, INC. 401 S. MAIN ST. CONDON 97823 Peggie Flatt (503) 384-2292 27-MAR-92 17-SEP-92	166 ER	SCHREINER'S CHEVRON, INC.	401 S. MAIN ST.	CONDON	97823	Peggie Flatt	(503) 384-2292	27-MAR-92	17-sep-92	
618 ER DOLLAR'S CORNER 808 MAIN ST. COVE 97824 Robert T. Rudman (503) 568-4451 15-JAN-92 12-JUN-92	618 ER	DOLLAR'S CORNER	808 MAIN ST.	COVE	97824	Robert T. Rudman	(503) 568-4451	15-JAN-92	12-JUN-92	
1223 ER DAYVILLE TEXACO HIWAY 126, MP 131 DAYVILLE 97825 Richard Smith (503) 987-2123 30-JAN-92 27-AUG-92	1223 ER	DAYVILLE TEXACO	HIWAY 126, MP 131	DAYVILLE	97825	Richard Smith	(503) 987-2123	30-JAN-92	27-AUG-92	
81 ER BUD'S CHEVRON SERVICE 8TH AND ALBANY ELGIN 97827 J. L. Rogers (503) 437-3777 21-JAN-92 11-SEP-92	81 ER	BUD'S CHEVRON SERVICE	8TH AND ALBANY	ELGIN	97827	J. L. Rogers	(503) 437-3777	21-JAN-92	11-SEP-92	
9340 ER HENDERSON FUEL, ELGIN SIT TOLLGATE HWY ELGIN 97827 Leisa Prince (503) 886-3027 11-MAR-92 28-SEP-92	9340 ER	HENDERSON FUEL, ELGIN SIT	TOLLGATE HWY	ELGIN	97827	Leisa Prince	(503) 886-3027	11-MAR-92	28-SEP-92	
10530 ER MERT'S FRONTIER STORE RT. 2, BOX 89 G/PALMER JU ELGIN 97827 Alberta Eckstein 503 437 6403 25-MAR-92 24-AUG-92	10530 ER	MERT'S FRONTIER STORE	RT. 2, BOX 89 G/PALMER JU	ELGIN	97827	Alberta Eckstein	503 437 6403	25-MAR-92	24-AUG-92	
4514 ER U & M GAS & GKUGERIES SYS ALBANY - HWY, 82 ELGIN 97827 Orrin Wagoner (503) 437-3521 OB-JAN-92 15-JUN-92	4514 ER	U & M GAS & GROCERIES	SYD ALBANY - HWY. 82	ELGIN	97827	Urrin Wagoner	(505) 437-3521	U8-JAN-92	12-10N-95	

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Tue Jan 1.

FAC ID REG 2991 ER 3513 ER 9291 ER 2284 ER

218 ER 3459 ER 6007 ER 10173 ER 6386 ER 10180 ER

2854 ER 2411 ER 3027 ER 9551 ER 3081 ER 8640 ER 8962 ER 4275 ER 6153 ER 6154 ER 2693 ER 4456 ER 9494 ER 4312 ER 9477 ER 9723 ER 10112 ER 10112 ER 9669 ER 1331 ER 1187 ER

1187 ER 4203 ER 4269 ER 7184 ER 2985 ER 453 ER 1744 ER 8608 ER 736 ER 4518 ER 1395 ER 7173 ER 1415 FR

1615 ER 4213 ER 10125 ER 6797 ER 1047 ER 535 ER

Statewide Summary Report - Zip Code Order

	ADDRESS	CITY	ZIP	CONTACT Sam Byrnes Vicki Fleshman Leisa Prince Irving E. Ness Jr. Benjamin D. Grote Stevie F. Testerman James Butner Rod Poole	PHONE	LOI	CA	АРР
CASTILLEJI, PAUL	111 N.W. 1ST	ENTERPRISE	97828	Sam Byrnes	(503) 276-3361	22-JAN-92	17-SEP-92	
GEM FUEL CO.	106 ALAMO	ENTERPRISE	97828	Vicki Fleshman	(503) 432-8635	01-APR-92		
	GOLF COURSE ROAD	ENTERPRISE	97828	Leisa Prince	(503) 886-3027	11-MAR-92	28-SEP-92	
IRV'S SERVICE	100 W. NORTH	ENTERPRISE	97828	Irving E. Ness Jr.	(503) 426-3377	09-JAN-92	08-SEP-92	
	302 WEST NORTH STREET	ENTERPRISE	97828	Benjamîn D. Grote	(503) 426-4342	23-JAN-92	16-SEP - 92	
STEVE'S AUTO REPAIR & SER		ENTERPRISE	97828	Stevie F. Testerman	(503) 426-3244	26-FEB-92	25-AUG-92	
WALLOWA COUNTY GRAIN GROW		ENTERPRISE	97828	James Butner	(503) 426-3116	09-MAR-92		
FOSSIL HARDWARE & BUILDIN		FOSSIL	97830	Rod Poole W. F. Mac Innes Clifford Cole Walter & Rhonda Dillman George Allensworth Calvin Sherman Dennis Miller Jeddie Aylett Donald H. Hartvig Norval & Mary Jo Lane Doug Hattenhauer Brent Leathers Nathan Crowther Nathan Crowther Lynn & Robert Phipps Linda Gandy	(503) 763-3441	18-MAR-92	24-AUG-92	
	2ND & MAIN, P.O. BOX 466	FOSSIL	97830	W. F. Mac Innes	• • • • • • • • • • • • •		21-SEP-92	
COLE BROTHERS AMERICAN ST		HAINES	97833	Clifford Cole	(503) 856-3401			06~JUL-92
	150 SOUTH MAIN	HALFWAY	97834	Walter & Rhonda Dillman	(503) 742-2136			
PINE-EAGLE FARMER'S COOP.		HALFWAY	97854	George Allensworth	(503) 893-6181			
	MAIN & CENTER P.O. BOX 81	HEPPNER	97836	Calvin Sherman	(503) 676-5062			
MILLER'S MINI-MART & CHEV		HEPPNER	97836	Dennis Miller	(503) 676-5556		14-SEP-92	
AYLETT, J.	RT.1, BOX 818	HERMISTON	97838	Jeddie Aylett	(503) 567-5938			
FRANKO #21	1235 N. FIRST 1580 HIGH LAND	HERMISTON	97838	Donalo H. Kartvig	(503) 295-2668		22 ern 02	
GOTTA STOP MINI MART	1580 HIGH LAND	HERMISTON	9/030	Norval & Mary Jo Lane	(503) 567-1957			
	710 HERMISTON WEST AVENUE 1655 N. FIRST ST.	HERMISION	97030	Doug Haltennauer	(503) 661-12/1	18-FEB-92		
	FEEDVILLE ROAD	HERMISTON	91030	Brent Leathers	(503) 661-1244			
	101 ORCHARD	HERMISTON	71030	Nathan Crowther	(503) 276-7611			
	200 N. HWY 395	HERMISTON	97030	Nathan Crowiner	(503) 276-7611 (503) 567-3537			
		HERMISTON	7/030	Linda Gandy	15023 517 1777	17 144 02	38 655 03	
		HERMISTON	91030	Linda Gandy Shelley Warren	(503) 567-9590	70-MAD-02	A1-ACT-02	
	1430 N. 1ST	KERMISTON	97030		(503) /81-/876	26-MAD-02	01-001-92	
	55 W ELM	HERMISTON	07838	Shelley Warren Don Russell Edgar D. Mackan Charles Morris Larry Mills Phyllis E. White Daniel Akers David L. Barnett Barbara Wadekamper Carlisle B. Wilson Gregory Jackson Brent Leathers Mark A. Smith Paul Castilleji Deborah K. Campbell Donald D. Waldrop Steve Winn	(503) 401-4010	20 MAR 72	01 001 92	
	110 W MAIN STREET	LEXINGTON	07830	Charles Morris	(503) 080-8310	13-JAN-02	06-JUL-92	13-JHL-92
MORROW COUNTY GRAIN GROWE		LEXINGTON	07830	Larry Mills	(503) 989-8221	27- JAN-92	00 002 72	
	BOX 6	IMNAHA	97842	Phyllis F. White	(503) 577-3112	06-FF8-92	28-SEP-92	
AKERS RENTAL GARAGE	MAIN & SPRING	IONE	97843	Daniel Akers	(503) 228-1905	27-MAR-92		
	320 MAIN STREET	IONE	97843	David L. Barnett	(503) 422-7576	16-JAN-92	24-JUN-92	
BROWNS AUTO & TRUCK STOP		IRRIGON	97844	Barbara Wadekamper	(503) 922-4221	17-JAN-92	22-JUN-92	
	301 W. MAIN	JOHN DAY	97845	Carlisle B. Wilson	(415) 955-6843	12-FEB-92	12-JUN-92	
JACKSON OIL INC. WEST CAR		JOHN DAY	97845	Gregory Jackson	(503) 575-1348	17-JAN-92	20-MAY-92	
	603 W. MAIN	JOHN DAY	97845	Brent Leathers	(503) 661-1244	10-JAN-92	25-AUG-92	30-JAN-92
MAINSTOP MINI MARKET & TE	100 E. MAIN ST.	JOHN DAY	97845	Mark A. Smith	(503) 575-0327	10-JAN-92	26-MAY-92	
CASTILLEJI, PAUL	MAIN & WALLOWA	JOSEPH	97846	Paul Castilleji	(503) 432-3531	13-JAN-92	10-SEP-92	
	1ST & MAIN	KIMBERLY	97848	Deborah K. Campbell	(503) 934-2237	30-MAR-92	01-0CT-92	
	I-84 & EXIT #265	LA GRANDE	97850	Donald D. Waldrop	(503) 963-8461	03-FEB-92	16-SEP-92	
	1508 ADAMS	LA GRANDE	97850	Steve Winn	(503) 963-4932	21-JAN-92	31-AUG-92	
	2112 ISLAND AVE	LA GRANDE	A1000	ponato p. watorop	(202) 902-0401	03-168-92	10-3CP-92	
	10102 N. MCALISTER ROAD	ISLAND CITY		Brian D. Waldrop	(503) 963-8461	09-MAR-92		01-JUL-92
DON KEELING CHEVRON SERVI		LA GRANDE		Donald E. Keeling	(503) 963-7271	10-JAN-92		
	2310 ISLAND AVE	LA GRANDE		Donald D. Waldrop	(503) 963-8461	03-FEB-92		
	2614 ISLAND AVE	LA GRANDE		Steve Winn		21-JAN-92		
	2602 WALLOWA LAKE HIGHWAY			Donald Shepherd	(208) 466-2475	13-JAN-92		
	2708 ISLAND AVE	LA GRANDE	97850	Robert Becker	(509) 522-0443	20-MAR-92		A
	802 ADAMS	LA GRANDE	97850	G. Wesley Kalmbach Donald D. Waldrop	(503) 963-2450			01-001-92
	408 ADAMS	LA GRANDE			(503) 963-8461		16-SEP-92	
STARKEY TRADING POST	58588 GRANDE RONDE RD	LA GRANDE	97820	Jo Anne Able	(503) 428-2110	17-JAN-A5	21-264-25	

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Statewide Summary Report - Zip Code Order

FAC ID REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT James G. Voelz James G. Voelz Donald D. Waldrop Wendell W. Rock Coy Johnston James Butner Carl Lewis Johnny Brown Murrel D. Oliver William Perkins Donald W. Rognon Nathan Crowther Karrie Rencken C. R. Nelson Jerry Boyer Dean Nichols Ivan McDaniel Melvin McKern John & Barbara Murdoch Dennis Lawson Nathan Crowther Charles Gooding John E. McBride Joe B. Donaldson Lisa Keith Ronald G. Worley George Allensworth Curt Randall Donald D. Waldrop Sue Hibdon John Hammell Sr Ted Morgan George E. Bonbright Craig Smith Steve Skidgel Dale E. Anderson Gary Thompson Daniel Vincent L C Skellenger Amy Bertelsen Attila Koppany Gary & Sandra Powell Brent Leathers Marla J. Gardner George E. Bonbright Lonnie L. Mattison Arnold Emery Phillip Yeargain Larry Dean Stratton Leon N. Fisher	PHONE	LOI	CA	APP
8761 ER	VOELZ OIL COMPANY	804 - 21st	LA GRANDE	97850	James G. Voelz	(503) 963-3214	28-MAY-92	28-MAY-92	
8760 ER	VOELZ, JAMES G.	1701 ADAMS	LA GRANDE	97850	James G. Voelz	(503) 963-3881	17-JAN-92	28-MAY-92	
1394 FR	VALDROP MOBIL CARD-LOCK	HIGHWAY 82	LA GRANDE	97850	Donald D. Waldrop	(503) 963-8461	03-FEB-92	16-SEP-92	
5635 FR	VENDELLS CORNER	2304 ADAMS	LA GRANDE	97850	Wendell W. Rock	(503) 963-6841	17-JAN-92	15-JUN-92	27-APR-92
301 ED	D K CAPAGE	HTUAY 305	LONG CREEK	07856	Cov Johnston	(503) 421-3396	27IAN-92	24-410-92	
10055 FP	UALLOUA COUNTY GRAIN GROU	HUY 82 & COLLEGE ST	LOSTINE	97857	James Butner	(503) 426-3116	09-MAR-92	21 1.00 /2	
08/8 FD	CRATY CARLYS RILLE MT LODG	BOY 157	MEACHAM	07850	Carl Leuis	(503) 276-7020	16-APR-92	01-007-92	
2350 ED	BDOUNS SERVICE CENTER	410 S MATH	MILTON-EDEEL	07862	Johnny Brown	(503) 270 7020	10-10N-02	14-SEP-92	
1205 50	CENTRAL SUELL	322 SOUTH MATH	MILTON-EDEEL	07862	Murral D. Oliver	(503) 730 0013	30-MAR-02	14 SEL 72	
226 ED	I FEIS MADKET	POUTE 3 BOY 826	MTI TON-EDEEU	07862	William Derkine	(503) 930 0300	31- 1AN-02	05 521 72	
17/6 ED	WILTON-EDEFUATED	PT & ROV OK	MTITON EDEEL	07862	Donald U. Rognon	(903) 736-6600	28-FFR-07		
4150 ER	DENDISTON COATH COOLEDS	217 = 000 70	MILTON_EDGEU	07962	Nathan Crouthan	(507) 276-7611	20 100 72 30-MAD-02	28-SED-02	
955/ CD	HUADINE HADVET	DOUTE 2 DOV 970	MILION-FREEW	07962	Karria Banakan	(503) 270-7011	01_ADD_02	20 3LF 74	
10010 ER	VILLA BADT	ULV 11 & CRACKETT RD	MILTON-FREEW	07862		(503) 950 5950	17 - IAN-02	26- MIC-02	-
1/40 ED	VILLA MARI		MONINERT	0796/	LARRY ROVAR	(503) 750 7247	73-JAN 72	14-550-02	
1400 EK	DUIEK, JERKI	140 U MATH	MOUNT VEDUON	0704	Deen Histor	(202) 934-2290	20"FEB-92	10-36F-72 37_6ED_02	
904/ EK	LRUSSRUADS SERVICE STATIO	TOT FACT MAIN OT	MOUNT VERNON	070/5	Juan Mananial	(503) 637-4703	10-JAN-92	42- HNL-02	
2013 EK	MEDANIEL UIL, INC.	150 N MOUNTAIN	MOUNT VERNON	07045	Ivan McDaniel Holvin McKonn	(303) 373" 1900 (E07) 073-777	21-JAN-92	15-000-92	
/20 EK	MURERN'S LEXALU	DO DOV 2/2	MOUNT VERNON	9/000	Melvin McKern	(202) Y32-4437	17-JAN-92	10-SEP-92	
107 EK	MURDULK'S SERVICE STATION	P.U. BUA 242	NUKIH PUWUEK	91001	John & Barbara Murdoch	(503) 090-22/1	23-MAK-92	29-3EP-92	
7002 EK	D & D SERVICE	ZCT S.W. BIKUN SIKCEI	PILUI KULK	97000	Verwits Lawson	(503) 443-2011	17-JAN-92	03-JUN-92	
7424 ER	PENDLEION GRAIN GROWERS,	E BIKUN UKEEK KU.	FILUI KUCK	71000	Chaples Conding	(203) 2/0"/011 (507) 5/7-4070	30-MAK-92	20-3EP-92	
0700 EK	TELCIER CHEVRON	MAIN & NWI SYS	PILUI RUCK	07040	Lohn E. Hollnide	(503) 307-0030	17- IAN-02	07-400-02	
1975 CD	DONALDSON LOE P	11/ N E EDONT (D O POV 3	PILUI KULK	07860	John E. McBrideen	(503) 443-2233	10-JAN-92	13-1442-02	
1233 EK	DUNALDSON, JUE B.	211 COUR STREET	PRAIRIE CITY	07940	Joe B. Donatuson	(503) 020-3722	10-JAN-92	18-650-02	
2/73 CD	HONE S CONORI, INC.	175 S IL EDONT ST	PRAIRIE CITT	07960	Poppid C Honlow	(503) 020-4411	38-EER-02	78-050-02	
2472 EK 2507 ED	NUKLEIS FRAIRIE TEARCO	LID S.W. FRUNI SI.	PRAIRIE UIII	07870	Ceorde Allerguerth	(503) 820-5054	28-669-02	1/-SEP-02	
2007 ER	PINE-EAGLE FARMERS CO-OF.	TING SI.		07970	Cust Dendell	(503) 803-6150	10-141-02	18_CED_02	
4741 CK 2/20 ED	RICHLAND RUIDMUTIVE	NUN BY & DYNED		07870		(503) 073-0(50	10-JAN-92	16-SEP-92	
3400 ER	SEVERA CONCERV	HICHINY TOS 2 ATU	SENECA	07873	Sue Wibden	(503) 563-8481	27-141-02	10-3EF 92	
1601 ER	JANNELLIE NADVET	1100 MAI 373 & 410	SENELA	07976	tobe Kommall Se	(503) 542-2108	17- INI-92	12_000_02	11-MAD-02
1371 EK 4/7 ED	RAMMELL'S MARKET		SERAL	71014		(503) 567-0910	10-550-02	28-AUC-02	11-MAK-92
143 EK	SPRAT GENERAL STORE	740 C MAIN CT	STAUCICIO	07975	Coordo E Rombalaht	(503) 400-2254 -	10-FEB-72	26-AUG-72	
0020 EK	STANFIELD BUNGLU	DIU S. MAIN SI.	SIANFIELD	91012	George E. Bondright	(DUD) 270-0000 (E07) E7(-2111	00-FEB-92 34-FEB-02	24-257-92	
7030 EK	COMMERVILLE STORE & TEXAL	CENTED STOLET	COANTYE	07077	Charg Smith	(303) 334-2111	21-FEB-72	20-36-92	
40/0 EK	CTACE CTOD SERVICE CTATIO	WILL STREET - DOV 137	SUMDIE	07977		15031 804-2304	16- IAN-02	05-1111-02	
1// EK	SIAGE STOP SERVICE STATIO	HILL SINCE - BUX 127	DALE	07880	Carly Thompson	(503) 694-2304	08-141-02	28-410-02	
0733 EK 0757 ED	DALE STORE	CODUED OF MAIN & CAMAR		07990	Dapial Vincent	(503) 421-3404	30-WAB-02	07-550-02	
9733 EK	OVELLENCED C	DATTLE MT CTATION		07990		(303) 421-3010	11_WAD_02	2/-SED-02	
9300 EK	SKELLENGER, L L	1990 (TH OTHER		71000		(E07) 000-EE04	3 - PIAK - 76	19-000-07	
10186 ER	AM/PM ARLU UP UMATILLA	1000 DIN SIKEEI	UMATILLA	9/002	Any Berteisen	(503) 922-5500 (507) 000 7007	20-MAK-92	10-3EF-94	
9630 ER	CROSSROADS TRUCK STOP, IN	HWY. 730 & BRIDGE JUNCTIO	UMATILLA	97882	Attila Koppany	(503) 922-3297	27-JAN-92	14-SEP-92	
6333 ER	G & S CHEVRON	1010 6TH ST.	UMATILLA	97882	Gary & Sandra Powell	(503) 922-3082	17-JAN-92	21-SEP-92	
4251 ER	LEATHERS OIL CO.	700 G. ST.	UMATILLA	97882	Brent Leathers	(503) 661-1244	10-JAN-92	25-AUG-92	
6629 ER	PRICE-LESS GAS, INC.	6TH AND G STREET	UMATILLA	97882	Marla J. Gardner	(208) 377-0024	01-APR-92	28-SEP-92	
6524 ER	UMATILLA BONOCO	1251 6TH ST.	UMATILLA	97882	George E. Bonbright	(503) 276-6666	05-FEB-92	24-SEP-92	
1466 ER	UMATILLA TEXACO	1100 6TH ST.	UMATILLA	97882	Lonnie L. Mattison	(503) 922-3617	51-MAR-92	30-SEP-92	
5198 ER	EMERY'S TEXACO	363 N. MAIN STREET	UNION	97883	Arnold Emery	(503) 562-5043	15-JAN-92	U3-AUG-92	
1078 ER	UNION CHEVRON SERVICE	FRONT & DEARBORN	UNION	97883	Phillip Yeargain	(503) 562-5577	30-MAR-92	U1-0CT-92	
6447 ER	STRATTON'S STORE	107 MAIN STREET, BOX 99	UNITY	97884	Larry Dean Stratton	(503) 446-3421	17-JAN-92	28-SEP-92	30-JUN-92
1261 ER	BILL'S HIGHWAY SERVICE	402 E HWY. 82	WALLOWA	97885	Leon N. Fisher	(503) 886-8031	30-MAR-92	01-001-92	

Tue Jan 1⊾

Statewide Summary Report - Zip Code Order

FAC ID REG	FAC NAME	ADDRESS	CITY	ZIP	CONTACT		PHONE	LOI	CA	APP
1508 ER 5472 ER 673 ER	GOEBEL, HAROLD HENDERSON FUEL CO. SUZI'S HANDY MART TOLLGATE MT. CHALET	ADDRESS 1ST & DOUGLAS BOX 356 211 N. WATER ST. RT#1, BOX 80 10 MILES SOUTH ADRIAN-END 5615 WILLIS STREET 5626 JOHN DAY HIGHWAY VANDACAR RD U.S. HIGHWAY 20/23 MILES 2977 "A" STREET ROUTE 2 PO BOX 17 700 MAIN STREET BURNS JUNCTION BOX 157, MAIN & BLACKABY 5320 HWY 20 101 THUNDEREGG BLVD. 117 GOOD AVE. 312 MAIN STREET LAKE OWYHEE/P.O. BOX 1605 18 N. SECOND ST. 304 MAIN 2653 LYLLE 518 MAIN ST. 5586 HWY SPUR 95 591 E.IDAHO AVE. 1218 SW 4TH AVENUE 2609 S.W. FOURTH AVENUE	WALLOWA WALLOWA WESTON	97885 97885 97886 97886	Ron Goebel Leisa Prince Suzi Reeve		(503) 886-2811 (503) 886-3027 (503) 566-2705	17-JAN-92 11-MAR-92 15-JAN-92	21-AUG-92 28-SEP-92 14-MAY-92	03~AUG-92
609 FR	TOLLGATE MT. CHALET STATELINE GROCERY/RT. 2 B	10 MILES SOUTH ADRIAN-END	ADRIAN	97901	Juanita J. Bennett		(503) $339-3204$	27-MAR-92	27-AUG-92 28-SEP-92	
2838 ER	FRONTIER MARKET	5615 WILLIS STREET 5626 JOHN DAY HIGHWAY VANDACAR RD U.S. HIGHWAY 20/23 MILES 2977 "A" STREET ROUTE 2 PO BOX 17 700 MAIN STREET BURNS JUNCTION BOX 152 MAIN & BLACKARY	BROGAN	97903	Jocelyn Berk-Hammond	t · · ·	(503) 473-2262	17-JAN-92	30-SEP-92	
9932 ER	VILSMEYER GROCERY	5626 JOHN DAY HIGHWAY	BROGAN	97903	M. C. Vilsmeyer		(503) 473-2614	18-MAR-92	20-JUL-92	
4654 ER	L & L SERVICE	VANDACAR RD	DURKEE	97905	Lee Carsten		(503) 877-2207	10-JAN-92	01-JUN-92	
615 ER	COLEMAN SERVICE	U.S. HIGHWAY 20/23 MILES	HARPER	97906	Brian Coleman		(503) 358-2372	15-JAN-92	10-SEP-92	
1704 EK	HUCKER GARAGE	ZYTT TAT SIKEET	HARPER	97906	Hattle J. Hucker		(503) 358-2442 (503) 860 28/5	12-JUN-92	01 007 03	
192 EK	FAREWELL BEND INC.	RUULE 2 PO BUX 17		97907	R. E. Kamsey	·	(202) 809-2842	20-MAK-92	01-061-92 70-650-07	
1611 ED	CONTA OIL CON INC.	TUU MAIN SIKEEI Duone Hinction	JURDAN VALLE	97910	Mangarette Ecketain	1	(303) 300-2221	13- 14N-02	22-JUN-92	22- II (JI-02
2231 FR	LIM/S TEXACO	ROY 157 MAIN & REACKARY	JORDAN VALLE	07010	James H Zatica	1.	(503) 586-2266	01-4PR-92	24-AHG-92	
9601 FR	JIM'S TEXACO JUNTURA ONE STOP	5320 HUY 20	JUNTI RA	97911	loren & Eva Canaday		(505) 500 2244	10-JAN-92	25-SEP-92	
5460 FR	BUD'S ONE STOP		NYSSA	97913	Bud Bowman	N		27-JAN-92	22-SEP-92	
7012 ER	FARMERS FEED & SEED CO.	-117 GOOD AVE.	NYSSA	97913	Flizabeth Stringer	2	(503) 372-3117	16-APR-92		
	GENERAL FARM SUPPLY, INC.	312 MAIN STREET	NYSSA	97913	C. Barry Zimmerman		(208) 888-5984	30-MAR-92		
10213 FP	LAKE OWYHEE RESORT	LAKE OWYHEE/P.O. BOX 1605	NYSSA	97913	Glenn Honeywell		(503) 372-2444	17-JAN-92	28-SEP-92	
	NYSSA CO-OP SUPPLY PHILLIPS 66 STATION SUNSET MARKET 913	18 N. SECOND ST.	NYSSA	97913	George Roth		(503) 372-2254	10-JAN-92	21-SEP-92	
1381 ER	PHILLIPS 66 STATION	18 N. SECOND ST. 304 MAIN 2653 LYLLE 518 MAIN ST. 5586 HWY SPUR 95 591 E.IDAHO AVE. 1218 SW 4TH AVENUE	NYSSA	97913	Dave Tower		(208) 342-4588	01-APR-92	01-0CT-92	
2821 ER	SUNSET MARKET 913	2653 LYLLE	NYSSA	97913	Frankie Lattin		(503) 372-2352	01-APR-92		
4225 ER	VP VALLEY PRODUCTS	518 MAIN ST.	NYSSA	97913	Don Eddy		(208) 365-4661	01-APR-92	01-OCT-92	
211 ER	BRISTOW, FRANK	5586 HWY SPUR 95	ONTARIO	97914	Frank Bristow		(503) 262-3666	10-JAN-92	16-JUL-92	
981 ER	CHEVRON U.S.A., INC 96	591 E.IDAHO AVE.	ONTARIO	97914	Wallace C. Warila Jr	•	503/883-8985	17-MAR-92		
5002 ER	DJ'S SINCLAIR	1218 SW 4TH AVENUE	ONTARIO	97914	Donald D. Waldrop		(503) 963-8461	03-FEB-92	16-SEP-92	
9872 ER			ONTARIO	97914	Donald W. Rognon		(801) 734-6400	28-FEB-92		
5464 ER	FREEWAY CARDLOCK	1040 NW 20TH (I-84 INTERC	ONTARIO	97914	Ralph E. Poole		(503) 889-3128	21-JAN-92	04-JON-92	
1602 ER	FREEWAY TEXACU	1765 N. UREGON SI.	ONTARIO	97914	Vern Wright		(503) 889-3522	24-FEB-92	01-001-92	
4404 EK 5570 CO	GRANT'S PETRULEUM	1040 NW 20TH (1-84 INTERC 1765 N. OREGON ST. 460 S.E. 1ST AVE. 1320 S.W. 4TH AVE.		97914	lom Grant		15071 000 4044	13-JAN-92 70-MAB-02	01-JUN-92	
9107 EK	JACKSON OIL CO. MATHEWS CHEVROLET ONTARIO FARM ORE IDA TRUCK STOP PHILLIPS 66 STATION POOLES COUNTRY STORE	1320 S.W. 410 AVE.	ONTARIO	0701/	Ann Colducit Dune		(JUJ) 000-0001 (E03) 990-4/64	30-MAR-92	29-254-92	
0193 EK	MAINEWS UNCYKULEI	3 MILES SOUTH OF ONTARIO		0701/	Ann Latuwett Rupe		(303) 609-6431	27- 14N-02		
4200 CK /79/ CD	ONTAKIU FARM	AST E IDANO AVE	ONTARIO	0701/	Chric Sumpers		(200) 0/4-3333	21-JAN-92 30-MAD-02	01-007-02	
4104 ER 6858 EP	DATING AS STOP	268 C U 479	ONTARIO	0701/	Dave Tower	¢	(208) 342-4588	01-APR-92	01-001-92	
5458 FR	POOLE'S COUNTRY STORE	2003 FALCON DR.	ONTARIO	97914	Ralph E. Poole		(503) 889-3128	21-JAN-92	04-JUN-92	
5/56 60	DOOLETS COUNTRY STORE	326 E TRANO AVE	ONTARIO	97914	Raiph E. Poole	:	(503) 889-3128	21-JAN-92	04-JUN-92	
151 ER	WIDMER SERVICE CENTER "A" STREET SERVICE PHILLIPS 66 STATION	118 S.W. 1ST	ONTARIO	97914	James W. Widmer		(503) 889-8296	13-JAN-92	22-SEP-92	
9184 ER	"A" STREET SERVICE	289 "A" STREET EAST	VALE	97918	William N. Cummings		(503) 473-2820	17-JAN-92	22-JUN-92	
6565 ER	PHILLIPS 66 STATION	252 GLENN ST.	VALE	97918	Wallace C. Warila Jr Donald D. Waldrop Donald W. Rognon Ralph E. Poole Vern Wright Tom Grant Chris Summers Ann Caldwell Rupe Jack Titcomb Chris Summers Dave Tower Ralph E. Poole Ralph E. Poole James W. Widmer William N. Cummings		(208) 342-4588	01-APR-92	01-0CT-92	
			VALE	97918	Marla J. Gardner		(208) 377-0024	01-APR-92	25-SEP-92	
10014 ER	VALE OREGON IRRIGATION DI	521 A. STREET W.	VALE	97918	William N. Cummings; Dave Tower Marla J. Gardner Ronald Jacobs		(503)-473-3243	01-APR-92		

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State of Oregon Department of Environmental Quality

Memorandum⁺

Date: January 11, 1993

To: Environmental Quality Commission

From: Fred Hansen, Director

Subject: Agenda Item L, EQC Meeting, January 29, 1993

Report to the Legislature: Fourth Annual Environmental Cleanup Report

Statement of Purpose

This is the fourth annual Environmental Cleanup Report of the Environmental Cleanup Division. ORS 465.235 requires that the Department of Environmental Quality (DEQ) submit a report to the Legislature, Governor, and EQC outlining the program's accomplishments during the previous fiscal year and its goals for the current fiscal year.

<u>Highlights</u>

The Fourth Annual Environmental Cleanup Report discusses the accomplishments of the Environmental Cleanup Division (ECD). ECD has successfully met all goals targeted in the 1992 Report to the Legislature:

- full implementation of the Voluntary Cleanup Program
- establishment of soil cleanup levels for "simple sites"
- development of numeric cleanup levels for petroleum in groundwater
- clarification of lender liability
- initiation of the orphan site account

The report provides a more detailed description of each goal.

[†]A large print copy of this report is available upon request.

Memo To: Environmental Quality Commission Agenda Item L January 29, 1993 Meeting Page 2

The report highlights accomplishments achieved during the previous fiscal year (July 1991 - June 1992) and projects accomplishments for the current fiscal year (July 1992 - June 1993). Specific areas addressed include the number of site assessments performed, and the number of investigations and cleanups completed by each Section: Voluntary Cleanup, Site Response, and Underground Storage Tank Cleanup. The number of emergency spills and illegal drug lab cleanups responded to by DEQ is also discussed.

Issues and priorities to be addressed during the next year are outlined in the report. Streamlining the cleanup process, financing cleanups and assisting local governments with cleanups are priorities for the environmental cleanup program. ECD is currently addressing these issues and expects to make significant progress in these areas during the next year.

Department Recommendation

It is recommended that the Commission approve this report.

<u>Attachments</u>

Fourth Annual Environmental Cleanup Report

Approved:

Section: Policy & Program Development

Division: Environmental Cleanup Division

Report Prepared By: Sally Puent

Phone: (503) 229-6431

Date Prepared: 1/11/93

SP:m SITE\SM35\SM4894 1/11/93

FOURTH ANNUAL

ENVIRONMENTAL CLEANUP REPORT

January 1993

submitted to:

Governor Barbara Roberts

Oregon Legislative Assembly

Environmental Quality Commission

by:

Fred Hansen, Director Department of Environmental Quality

Mary Wahl, Acting Administrator Environmental Cleanup Division

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FORWARD

This report summarizes the accomplishments of the Department of Environmental Quality's (DEQ) Environmental Cleanup Division (ECD) and the challenges that lie ahead. ECD's mission is to discover, assess, investigate and clean up sites contaminated by hazardous substances.

I am pleased to report that ECD has met every goal identified in last year's Report to the Legislature:

- the Voluntary Cleanup Program is up and running
- soil cleanup standards have been adopted
- numeric cleanup levels for petroleum in groundwater have been established
- lender liability has been clarified, and
- the Orphan Site Account has been funded.

However, much remains to be done. Over the next year we will continue working to streamline the cleanup process so more sites can be cleaned up more quickly at less expense. Continued development of the Voluntary Cleanup Program will remain a priority. Interim cleanup actions will be emphasized for all cleanups. Financing cleanups will continue to be one of our biggest challenges, and we are committed to pursuing cost recovery and the sale of pollution control bonds.

Another priority is to reach out to local governments and work more closely with them in cleaning up contaminated land and returning it to productive use. One way we hope to expand this cooperative exchange is through a special Environmental Cleanup Conference we are holding in January 1993.

New challenges will continue to arise for Oregon's Environmental Cleanup Program. I believe the program and staff are innovative and flexible enough to meet those challenges and make the program more effective as it continues to evolve.

Respectfully,

Fred Hansen Director Department of Environmental Quality

Accomplishments

The Environmental Cleanup Division (ECD) has successfully met all the goals targeted in the 1992 Report to the Legislature. These goals were:

• full implementation of the Voluntary Cleanup Program

•establishment of soil cleanup levels for "simple sites"

- development of numeric cleanup levels for petroleum in groundwater
- clarification of lender liability
- initiation of the orphan site account

A more detailed description of each follows.

Introduction

The Department of Environmental (DEQ) established the Quality **Environmental Cleanup Division (ECD)** to implement Oregon's 1988 in environmental cleanup laws. ECD's mission is discover. to assess, investigate and clean up sites contaminated by hazardous substances.

This report presents ECD accomplishments during the past fiscal year (July 1991-June 1992). It also summarizes cleanup activities that are in progress, those that have been completed during the current fiscal year, and those projected for completion through June 1993.

Tables A through D show cleanup activities conducted since ECD was created, as well as cleanup work that is projected through the end of the current biennium (July 1991-June 1993). For comparison, Appendix A is a condensed version of the 1991 FourYear Plan. Appendix B, the ECD Glossary, provides descriptions of cleanup activity phases. The glossary also provides definitions of general environmental cleanup terminology. Appendices C and D list the status of all current projects.

Site Screening & Assessment

ECD's site screening and assessment involves discovery of a potentially contaminated site, initial screening and ranking, and assigning the site to an appropriate cleanup process.

The Environmental Cleanup Site (ECSI) is an Information System electronic filing system or database of potentially sites contaminated or contaminated hazardous from substances. As of June 1992, 100 new sites were added to ECSI with 110 more expected to be added by June 1993. Currently there are 1103 sites in ECSI.

The Confirmed Release List (CRL), a subset of ECSI, is a list of sites where contamination has been verified. Thirty-seven new sites were added to the CRL during the 1991-92 fiscal year. Sixty more are estimated to be included by June 1993. The CRL currently has 80 sites.

The "inventory", also a subset of ECSI, is a list of sites where contamination been confirmed through has а preliminary assessment (PA) and the need for further action has been Twenty-two new sites determined. were added to the Inventory during 1991-1992 fiscal vear with approximately another 34 added by June 1993. The are currently 50 sites on the inventory.

Between July 1991 and June 1992, preliminary assessments were completed at 54 sites. Forty more are expected to be completed by June This will bring the total PAs 1993. completed during the biennium to 94. The total is consistent with ECD's 1991 Four-Year Plan which estimates 100 PAs for the 1991-1993 biennium. Staff reductions and an emphasis on hazard ranking--necessary to ensure worst sites are addressed first--have slowed the total number of PAs completed.

Simple Site Cleanup Process

In June 1992, the Environmental Quality Commission (EQC) modified the Environmental Cleanup Rules by adopting numeric soil cleanup levels for about 75 hazardous compounds. The rules also provide a streamlined process for "simple", soil-only contaminated sites. The soil cleanup levels and streamlined cleanup process have encouraged more cleanups of simple sites through the Voluntary Cleanup Section (VCS). Currently VCS is overseeing 54 active simple and complex projects.

The 1992 report combined VCS project statistics with those of the Site Response Section. VCS statistics are reported separately in this year's report. Now that the soil cleanup standards are in effect and many VCS projects are going through the simple site process, it is logical and more meaningful to report separately.

New projects are initially placed in the pre-remedial development (PD) phase. Activities such as negotiations, file review, and work plan approvals occur in the PD phase. VCS had 17 projects in the PD phase during the fiscal year 1991-1992 and expect to have an additional 36 during the fiscal year 1992-1993.

For the fiscal year ending June 1992, three removals, and one remedial action were completed. Four remedial investigations were also completed. For the fiscal year ending June 1993, ten removals, three remedial actions, and 11 remedial investigations are expected to be finished. There are currently eight projects on the VCS "waiting list". About three new projects are signed up each month.

Complex Site Cleanup Process

In 1991, DEQ received Legislative budget approval and Emergency Board expenditure limitation budget for initiation of the Orphan Site Account. Orphan sites are sites where the responsible parties are unknown, unwilling or unable to clean up. In July 1992, pollution control bonds were sold, initiating the orphan site account. These funds have enabled cleanups to proceed on schedule at five orphan site cleanups.

One of these orphan sites, McCormick & Baxter Creosoting Company in north Portland, has been a high priority. The Site Response Section (SRS) has completed a remedial investigation (RI) and a feasibility study (FS) at the site and is currently taking public comments on the proposed cleanup options. DEQ expects to recommend a final cleanup remedy for McCormick & Baxter by Spring 1993.

For the fiscal year ending June 1992, six remedial investigations and four feasibility studies were completed. By the end of June 1993, another 18 remedial investigations and 13 feasibility studies are expected to be completed.

During the fiscal year 1991-1992, four removals and six "remedial designs/remedial actions" were finished. Another five removals and four "remedial designs/remedial actions" are expected to be done by June 1993. These projections are consistent with the projected Four-Year Plan figures for the 1992-93 biennium. However, the number of removals exceeds the projection. The increase in the number of removals reflects ECD's move toward implementing interim actions whenever feasible. (A discussion of interim actions follows in the *Issues* section of the report.)

Operation and maintenance (O&M) activities, that is, follow up monitoring, are currently underway at one site. By June 1993, O&M activities will be started at two more sites and completed at one site.

Underground Storage Tank (Petroleum) Cleanup Process

ECD handles cleanup of petroleum contamination from underground storage tanks (USTs) under a separate process. Because of the great number of UST sites needing cleanup, ECD has streamlined the process to allow more sites to be cleaned up more quickly. Amendments to the Cleanup Rules for Leaking Petroleum UST **Systems** established numeric cleanup levels for contamination petroleum of groundwater. These amendments became effective in October 1992. The rule amendments provide clear directions and standards, thus making it easier and more efficient for owners to clean up these sites.

The UST Cleanup Section has continued to hold the well attended "Contractor's Day" annually. This provides an opportunity for the public to ask questions about the UST cleanup process.

The UST Cleanup Section has initiated a concerted effort to make sure that piles of contaminated soil at UST sites are treated and/or removed in a timely manner. Problems with existing soil piles are being addressed and permit requirements are being modified to ensure proper future handling of contaminated soils.

During the fiscal year ending June 1992, 1062 releases of petroleum from tanks were reported, 374 investigations, and 331 cleanups were completed. For the 1991-1993 biennium, it is estimated that more than 1100 cleanups will be initiated and 537 completed. These numbers are significantly higher than estimated in the 1991 Four-Year Plan.

Spill Response and Drug Lab Cleanups

DEQ cleans up only a small portion of the hundreds of emergency spills reported annually. DEQ's spill response program includes oversight of cleanup and disposal activities performed by responsible parties, and arranging cleanups when no responsible party is available. For the fiscal year ending June 1992, DEQ authorized cleanup of 32 emergency spills, costing a total of \$79,115 in contracted cleanup expenses. In March 1992, rules were adopted rescinding the requirement for local government to pay for part of drug lab cleanup costs. DEQ is currently fully funding cleanup of illegal drug lab sites. Previously, local governments were required to pay a "cost-share" amount. During the fiscal year ending June 1992, 80 drug labs were cleaned up at a cost of \$197,677.

Lender Liability

Rule amendments clarifying the scope of exemption from cleanup liability for financial institutions and other persons who hold security interests in property were adopted by the EQC in December 1992. The amendments also identify instances when certain trustees would not be liable for cleanup costs of trust properties.

DEQ/EPA--Effective Cooperation Means More Cleanups

The U. S. Environmental Protection Agency (EPA) supports DEQ in its cleanup efforts in many ways. Two important EPA state support programs are the Core Grant and cooperative agreements.

The Core Grant provides training and equipment for state cleanup program development. Originally, the Core Grant paid for the development of an extensive ECD computer system, which tracked sites and provided timely information to the public and other agencies. This system paved the way for the Environmental Cleanup Site Information System (ECSI) which enables ECD to track the status, assess and assign priority to more than 1000 sites statewide. Recently the Core Grant funded the development of soil cleanup rules for simple sites. The rules allow more effective and efficient cleanups of simple sites. EPA is also considering the development of similar cleanup rules nationally.

DEQ has also developed a time accounting system which supports accurate cost recovery through the Core Grant.

Cooperative agreements provide funds for DEQ to develop site identification systems such as ECSI and Geographical Information Systems (GIS). GIS identifies sensitive and potential problems areas in the state which helps DEQ better manage its resources.

Cooperative agreements also provide funds for DEQ to conduct assessments of contaminated property. EPA's support enables the state to clean up more sites. As many as 50-75% of sites undergoing cleanup in the Voluntary Cleanup Program result from problems identified through site assessments.

The number of contaminated sites currently being cleaned up by DEQ has doubled (from 50 to more than 100) as a direct result of EPA support.

Summary

All goals outlined in the 1992 Legislative Report were attained during the current fiscal year: adoption of soil cleanup standards, adoption of groundwater standards for petroleum UST leaks, initiation of the Orphan Site Account by the sale of pollution control bonds, and adoption of lender liability rule amendments.

In addition, investigation and cleanup activities initiated and completed for the 1991-1993 biennium are closely in line with those projected in the 1991 Four Year Plan.

Table A: Projects Completed

Site Assessment

	1/88-6/90	7/90-6/91	7/91-6/92	7/92-6/93*	TOTAL
Suspected		[
Releases Added	883	74	100	110	1167
Confirmed Release					
List Additions	0	33	37	60	130
Facilities added					
to Inventory	0	24	22	34	80
Preliminary					
Assessments	51	48	54	40	193

Site Response

Removals	6	5	4	5	20
Remedial					
Investigations	4	3	6	18	31
Feasibility					
Studies	3	3	4	13	23
Remedial Design &					
Remedial Action	3	3	6	4	16

Voluntary Cleanup

Pre-Remedial					
Development	**	1	20	28	49
Removals	**	. 0	3	10	13
Remedial			······································		· · · · · · ·
Investigations	**	1	. 4	11	16
Feasibility					
Studies	**	0	0	3	3
Remedial Actions	**	0	1	3	4

Underground Storage Tank Cleanup

Releases Reported	1499	988	1062	650	4199
Investigations	1165	488	374	333	2360
Cleanups	403	343	331	206	1283

Drug Lab/Spill Response

Drug Lab Cleanups	216	89	80	60	445
Spill Cleanups	109	30	32	40	211

* Projected

** Prior to initiation of program

Table B: Projects Initiated

Site Assessment

	1/88-6/90	7/90-6/91	7/91-6/92	7/92-6/93*	TOTAL
Preliminary					
Assessments	73	45	40	39	197

Site Response

Removals	11	3	2	6	22
Remedial					
Investigations	29	14	9	5	57
Feasibility					
Studies	13	5	3	4	25
Remedial Design &					•
Remedial Action	11	4	6	10	31

Voluntary Cleanup

Pre-Remedial					
Development	**	13	17	36	66
Removals	**	1	3	9	13
Remedial					
Investigations	**	2	7	39	48
Feasibility					
Studies	**	0	0	7	7
Remedial Actions	**	0	3	3	6

Underground Storage Tank Cleanup

Cleanups	627	545	754	371	2297

* Projected

** Prior to initiation of program

Table C: Voluntary CleanupJuly 1992 through June 1993

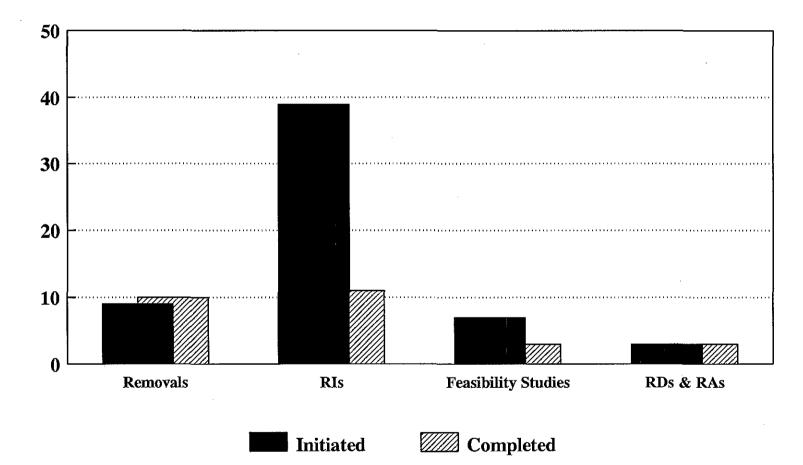
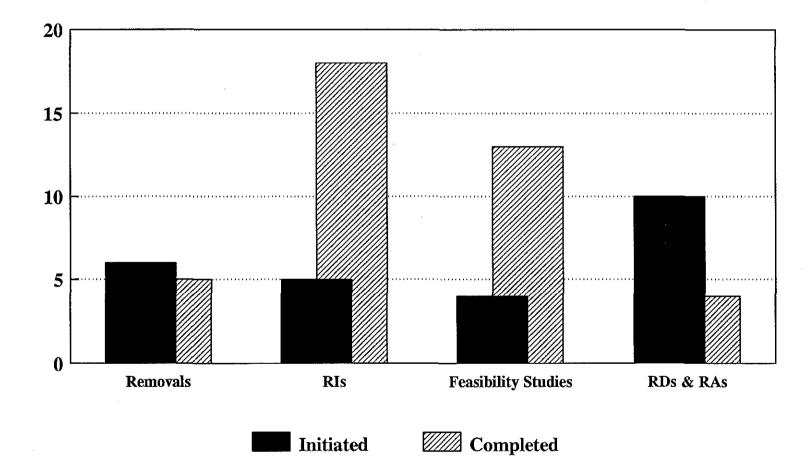


Table D: Site ResponseJuly 1992 through June 1993



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The Environmental Cleanup Division (ECD) was established in 1988 by the Department of Environmental Quality (DEQ) and charged with implementing Oregon's environmental cleanup law. The following section discusses key issues to be addressed in implementing the law in the coming year. Issues highlighted include: streamlining the cleanup process, financing cleanup, and local government assistance.

Streamlining the Process

During the past two years, ECD has worked hard to streamline the cleanup process, and continued efforts are planned. A summary of the ways the cleanup process has been simplified sets the stage for a discussion of future efforts.

support First. with the of the Legislature, the Voluntary Cleanup Program was established to assist responsible parties in their efforts to complete environmental cleanups. As of December 1992, 54 projects are receiving assistance, six projects have been completed, and eight are on a waiting list. As suggested by the number of participants, demand for the program is strong and continues to increase. In addition, the U.S. Environmental Protection Agency (EPA) and other agencies have expressed interest in Oregon's Voluntary Cleanup Program as a model for other state and federal cleanup efforts.

The emergence of the Voluntary Cleanup Program has enabled ECD to become more responsive to the needs of property owners who want oversight for site investigations and cleanups.

Second, the Environmental Quality Commission has enacted two major sets of administrative regulations designed to provide greater certainty in the cleanup process. These regulations include: a) soil cleanup standards for hazardous substances at "simple" sites; and b) groundwater cleanup standards petroleum contamination from for underground storage tanks. The standards, and associated guidance, are now providing responsible parties with greater certainty about "how clean is clean". As a consequence, ECD anticipates more sites will get cleaned up more quickly at a reduced cost.

Third, greater emphasis is being given interim actions such as soil to removals, stabilization, site security, and groundwater treatment systems. In general, interim actions help stabilize sites and reduce risks to public health and the environment. Investigations are focused so when it is apparent that an interim action will prevent the spread of contamination or achieve a significant degree of cleanup early in the process, implementation occurs. In many cases, interim actions speed selection of a final cleanup remedy which also helps to reduce long-term cleanup costs.

Many environmental cleanup projects remain inherently complex and However. ECD expensive. is committed to efforts to simplify and improve the cleanup process whenever practical and in the public interest. For example, during the next year ECD anticipates growth in the Voluntary of Cleanup Program, completion cleanup quidance for standards. evaluation of the feasibility of developing hazardous substance groundwater cleanup standards, and dedication of additional resources for interim actions. The UST Cleanup Program is also looking at innovative ways to streamline the process and better manage the heavy workload.

Financing Environmental Cleanup

Financing environmental cleanups remains a central challenge for ECD and Oregon's Legislature. Specific cleanup programs, such as the Underground Storage Tank Cleanup and the Drug Lab Cleanup Programs, face significant hurdles in securing more stable financing. These program-specific needs, and potential solutions, will be presented to the Legislature for consideration.

ECD must also maintain balanced financial support among ECD's cleanup processes. While Voluntary Cleanup Program participants have exceeded expectations, the program's demand is supported, in part, by the state environmental cleanup law's enforcement measures. Voluntary projects do not encompass the whole of Oregon's contamination problems. Work on orphan sites and enforcement cleanups must also continue to ensure cleanup of Oregon's worst sites first.

However, for ECD as a whole, two principle activities will most clearly impact the ability of the state to continue effective environmental cleanups. These activities are: cost recovery and development of the Orphan Site Account.

<u>Cost Recovery.</u> During the past two years, ECD has become more aggressive and far more successful in its efforts to require responsible parties to pay for the costs of site cleanup. During the most recent reporting quarter (July-September 1992), ECD recovered from responsible parties more than 32% of the state's site-specific expenditures for environmental cleanup.

Cost recovery is consistent with the environmental cleanup law 1987 requirements and, of course, reduces the need for other forms of public expenditure. The advent of the Voluntary Cleanup Program, with its user-fee supported structure, represents one means by which ECD has enhanced the percentage of expenditures recovered. Close to 100% of the state's costs are recovered in the voluntary program.

Also, in addition to seeking cost recovery for direct project expenses, ECD now routinely bills responsible parties for administrative and related overhead expenses attributed to the projects. Orphan Site Account. "Orphan" sites are those where the responsible parties are unknown, unwilling or unable to pay for cleanup. Sites now being investigated and cleaned up using the Orphan Site Account (OSA) include East Multnomah County Groundwater, McCormick and Baxter Creosoting Company, Nu-Way Oil Company, Milwaukie Area Groundwater, and Groundwater. Lakewood Estates Proposed additions are D&D Battery, Fashion Dry Cleaners, and Springfield Area Groundwater.

In September 1991, the Legislative Emergency Board approved an initial \$7.3 million expenditure limitation for OSA project work. OSA funds were raised, as planned, by sale of pollution control bonds, with debt service provided by three fees established by the Legislature.

In order to continue funding of current and future orphan sites, it will be necessary to sell additional pollution control bonds during the 1993-95 biennium. The OSA activities currently under way will help define the necessary tasks and, therefore, the scope and size of any request for an increase in OSA expenditure limitation.

Local Government Assistance

ECD is working closely with local government officials to help elected officials and their staffs cope with potential environmental cleanup liability.

ECD and the International City/County Management Association (ICMA) are presenting an environmental cleanup seminar for local government officials in early 1993. Oregon Department of Economic Development, the League of Oregon Cities, the Association of Oregon Counties, and the American Planning Association, Oregon Chapter are also co-sponsoring the event. A number of local governments are currently working with ECD under the Voluntary Cleanup Program.

The purpose of this conference is to provide information on the state's cleanup programs and to encourage input from local governments and other state agencies. DEQ's goal is to be more responsive to local government needs throughout the state.

Summary

Streamlining the process, financing cleanups, and assisting local governments are priorities for the environmental cleanup program. ECD is currently addressing these issues and expects to make significant progress in these areas during the next year.

APPENDICES

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Four-Year Plan

In January of 1991, a four-year plan of action for the state's environmental cleanup report was submitted to the Governor, the Legislature and the Environmental Quality Commission as required by ORS 465.235. The following information provides a condensed version of the plan. Except as noted, the January 1991 Legislative Report's Four-Year Plan has not been amended.

Four-Year Plan Activities

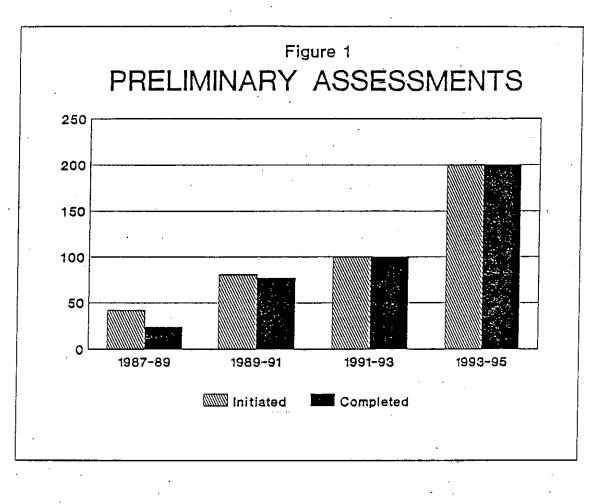
Two major trends in the future of environmental cleanup activities can be anticipated. First, the total number of activities will increase because the infrastructure and rules for implementing the environmental cleanup program have been established. Second, a shift in the types of activities completed is expected as sites move from investigative to cleanup stages.

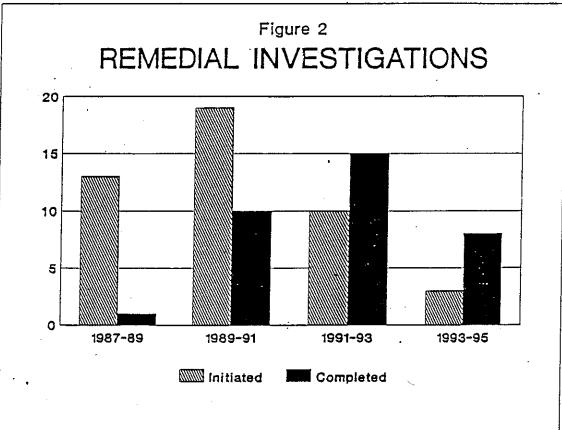
Figures 1-5 depict the number of DEQ projects which will be initiated and completed. Figure 1, for example, shows that the number of completed preliminary assessments is expected to climb from 77 in the 1989-91 biennium to approximately 100 in 1991-93 and 200 in 1993-95.

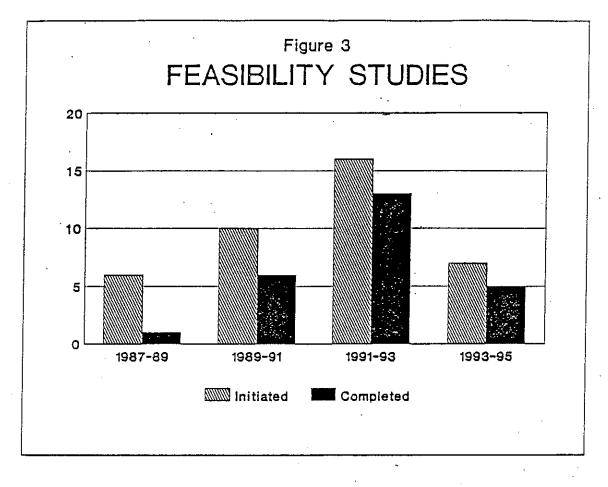
In contrast to the anticipated steady growth in completion of preliminary assessments, a different trend is anticipated for remedial investigations and feasibility studies. As shown in Figure 2, DEQ projected that 10 remedial investigations would be completed in the 1989-91 biennium, followed by 15 in 1991-93 and 8 in 1993-95. Likewise, 6 feasibility studies were scheduled for completion in 1989-91, followed by 13 in 1991-93 and 5 in 1993-95 as shown in Figure 3. This anticipated short-term surge in completion of remedial investigations and feasibility studies reflects movement of sites currently under investigation to cleanup stages.

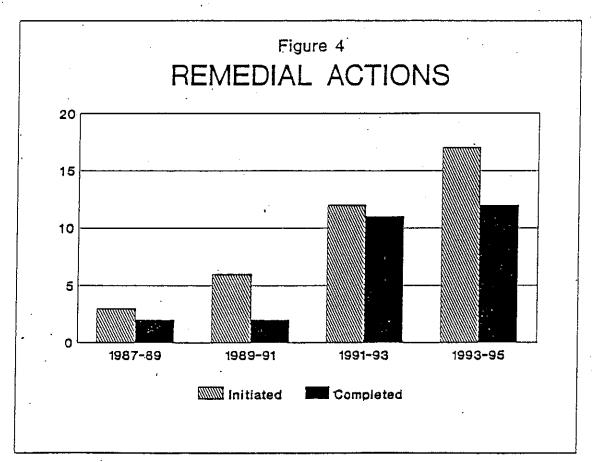
Figure 4 demonstrates the combined effect of increasing environmental cleanup activity and the movement of individual sites from investigation to cleanup phases. As shown, DEQ estimates the number of completed remedial actions will increase from 2 in the 1989-91 biennium to 11 in 1991-93 with an additional 12 completed in 1993-95.

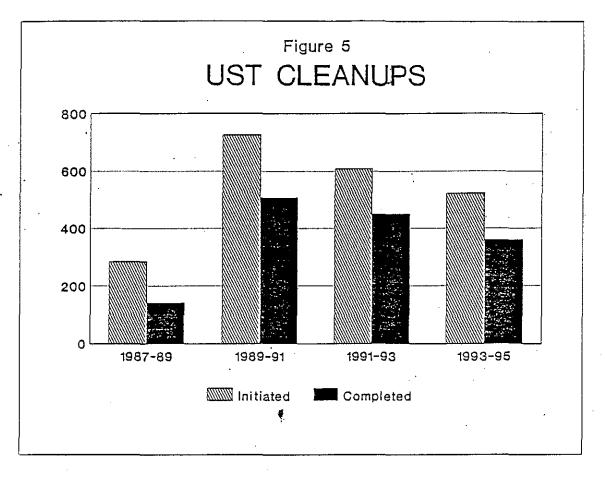
Hundreds of sites contaminated by petroleum products already have been identified and cleaned up, primarily sites where petroleum product contamination has been limited to soils. Figure 5 summarizes the number of UST cleanups completed per biennium and projections for the program's future.











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Environmental Cleanup Division GLOSSARY

aquifer: an underground bed or layer of earth, gravel or porous stone that contains water.

background: the level of hazardous substance occurring naturally in the environment prior to a spill or release.

confirmed release list: a list of properties where it has been verified that a hazardous substance has been released into the environment. Sites on the confirmed release list do not necessarily require any cleanup action.

consent order: A legal document that specifies a responsible party's obligations when entering into a cleanup settlement with the state.

corrective action plan: a work plan specifying exactly how a site contaminated with petroleum products will be cleaned up.

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act-commonly known as Superfund; the federal law passed in December 1980 authorizing identification and cleanup of abandoned hazardous waste sites.

DEQ: Department of Environmental Quality; the Oregon state agency established to restore, enhance, and maintain the quality of Oregon's air, water and land.

ECD: Environmental Cleanup Division; the division within DEQ created to identify and clean up sites contaminated with hazardous substances.

EPA: United States Environmental Protection Agency; the agency responsible for enforcing federal laws protecting the environment.

EQC: Environmental Quality Commission; the five-member citizen panel appointed by the Governor to set the environmental policies and regulations for Oregon.

feasibility study (FS): a study conducted to determine different options for cleaning up a site; it is based on information gathered during the "remedial investigation." The FS examines different levels of cleanup, cost effectiveness, permanence and level of protection, as well as available technology.

groundwater: the mass of water in the ground that fills saturated zones of material such as sand, gravel or porous rock.

inventory: the list of sites where release of a hazardous substance has been confirmed and further investigation is necessary.

LUST: leaking underground storage tank.

NPL: National Priorities List; the EPA's official list of hazardous waste sites nationwide to be addressed under the Superfund law.

numeric cleanup standards: a matrix used in simple soil cleanups that defines "how clean is clean" by setting a pre-approved cleanup level.

orphan site: a site contaminated with hazardous substances where the owner/operator is unknown, unwilling or unable to pay for cleanup.

plume: the extent or boundaries of the spread of contamination in groundwater.

preliminary assessment (PA): the initial determination to confirm whether a hazardous substance has been released into the environment, and whether further action is necessary.

RCRA: Resource Conservation and Recovery Act (1980); regulates management and disposal of hazardous materials and wastes currently being generated, treated, stored, disposed or distributed.

release: a hazardous substance that has spilled, leaked or otherwise been discharged into the environment.

remedial action (RA): work done at a contaminated site to clean up, control or contain the hazardous substances.

remedial investigation (RI): an environmental investigation that includes information on the types and concentrations of hazardous substances, the geology and hydrology of the area, and an evaluation of potential risks to human health and the environment.

risk assessment: a comprehensive evaluation that examines potential risk to human health and the environment in terms of routes of exposure, populations at risk, and degree of harmful effects.

SARA: Superfund Amendments and Reauthorization Act (1986); federal law reauthorizing and expanding the jurisdiction of CERCLA.

site investigation: an environmental investigation that includes information to determine whether a site should proceed to the next stage of investigation or whether it should be placed in a No Further Action status. A site investigation may be performed when a full RI/FS is not required.

Superfund: see CERCLA

ust: underground storage tank

work plan: a detailed report that includes a schedule for completing an investigation, a description of sampling methods to be used, quality control measures and safety procedures.

APPENDIX C

PROJECT ASSIGNMENT/STATUS Site Response Section

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PROJECT NAME / LOCATION	lead/ Fund C Source P	CURR		SUBSTANCES OF CONCERN	MEDIA CONTAMINATED	PROJECT ACTIVITY STATUS
Alkali Lake Alkali Lake, Lake Co. #291			INIT	2,4,-D, Chlorinated phenols, MCPA, dioxins, furans	groundwater soil surface water	EPA completed field work for Phase I ecological assessment. DEQ groundwater sampling completed in July. Four. miles of cattle fence around west. Alkali Lake complete in July.
Allied Plating Portland #6			INIT INIT	Heavy metals	groundwater soil	Removal conducted October 1992. Record of decision expected in fall 1992.
Associated Chemists, Inc. Portland #94	STATE P State	PA	C25	PCP, solvents	unknown	Associated Chemists submitted letter to supplement PA performed by Parametrix. Associated Chemists declined opportunity to conduct voluntary PA.
Ballweber Aurora #1086	STATE P PRP R		INIT INIT	1,1,1-TCA, 1,1-DCE	groundwater	Project related to Lakewood Estates. Site and financial information requested by DEQ received & reviewed by DEQ & DOJ. Additional information requested. DEQ conducted limited site investigaton in Sept & Oct. Results being evaluated.
Bergsoe Metal Corporation St. Helens #12			C75 INIT	CD, CR, PB, Liquid waste	groundwater soil	Pond sediment dredging continues with a second sweep scheduled for November 1992.
Broadway Cab Portland #383	STATE F	RI	C75	PNA, benzene, toluene, xylene	groundwater soil	Risk assessment received and under review.
Carlton Company Milwaukie #1035	STATE R PRP F	R I FS	C50 INIT	1,1-DCE, PCE, TCE, VC	groundwater soil	A full round of sampling will be conducted in early November.
Cascade Corporation Troutdale #635		RI FS	C75 INIT	DCE, PCE, TCE, TPH	groundwater soil surface water	Interim TSA Assessment Report received. Additional wells to be installed.
Columbia Steel Joslyn Sludge Pond Portland #104	STATE F PRP f	RI FS	C75 INIT	Creosote, PCP, THP	groundwater soil	The risk assessment report received 8/7/92 has been approved. The FS report received 10/30/92. DEQ review under way.
Cornell Pump Milwaukie #1093	STATE F State	PA	C50	TCE, TCA	groundwater soil surface water	Revised preliminary assessment submitted. Facility requested to update hazardous waste generator status and address stormwater runoff.
D&D Radiator White City #1166	STATE F State	PD	INIT	AS, CU, CR, PB	soil	Plan to secure site by end of December. Investigating PRP status and evaluating site for removal action.
Dant and Russell Mill Site North Plains #108	STATE F PRP I	RI FS	C75 C75	AS, CR, CU, PAHS, PCP	groundwater soil surface water	Draft final RI/FS report for groundwater, surface water and sediment received.

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	LEAD/ Fund	CURR	-	SUBSTANCES		
PROJECT NAME / LOCATION	SOURCE	PHASE	LOMPL	<u>OF CONCERN</u>	CONTAMINATED	PROJECT ACTIVITY STATUS
Dant and Russell Soils Unit North Plains #108	STATE PRP	RD	C25	AS, CR, PCP, PAHs, Dioxins	soil	Verbal agreement reached on consent decree.
Doane Lake Study Portland #36	STATE PRP	со	INIT	PNA, VOCs, metals, pesticides, phenols	groundwater soil surface water	DEQ commented on final report and requested additional information on 5/2/91. Doane Lake Industrial Group has formally declined to submit additional information as requested.
Dow Corning Corp Springfield Plant Springfield #694	STATE PRP	RI	INIT	1,1,1-TCA, 1,1-DCA PCE, TCE, 1,1-DCE	groundwater soil	The SI work plan approved 6/17/92. Field work conducted July thru Sept 1992.
East Multnomah Co. Area Troutdale #13	STATE STATE	RI	c 50	DCE, PCE, TCA, TCE	groundwater soil surface Water	DEQ developed conceptual approach for completion of Regional RI/FS. Presented to Boeing Cascade & City of Portland 11/12/92. Followup meeting scheduled 12/7/92.
East Multnomah Co. Monitoring East Mult. Co. #13	STATE PRP	PM	INIŢ	TCE, PCE, DCE	groundwater	3rd Quarter sampling completed week of 11/9/92. Results pending.
Elixir Industries Aurora #1087	STATE PRP	PD R I	C75 C75	1,1,2,2-tetrachloro- ethane, toluene	septic system	Final field investigation report received August 18th. Additional sampling round completed in June. Results received on August 18th. No further work requested at this time.
Foothills Blvd. Dump Grants Pass #578	STATE STATE	PD	INIT	PCB, metals, pesticides	Soil	In process of completing SOW for monitoring well installation.
Forrest Paint Co. Eugene #201	STATE PRP	RA	INIT	MEK, Toluene, ethyl benzene, xylene	groundwater soil	Installation and construction of groundwater treatment system completed. Performance evaluations to be conducted at end of first year of operation.
Frontier Leather Sherwood #116	STATE	SI	INIT	chromium, lead, unknown waste	soils	Sampling for soil and GW around buried lab waste completed. Results under review.
Gould, Inc./N.L. Portland #49	FED PRP	RA	INIT	CD, PB, ZN	groundwater soîl surface water	Design completed. Remedial action initiated. Air monitors are installed. DEQ field audit for air monitoring performed October 1992.
Guilds Lake Portland #404	STATE PRP	RD	INIT	РВ	soil	Cleanup consists of an asphalt- concrete cap and institutional controls. Marathon and City of Portland will implement remedy in 1993.
Hanna Industries Milwaukie #1114	STATE STATE	PA	C75	solvents, metals, acids	groundwater soil	Preliminary assessment equivalent submitted. Site referred to NWR for RCRA compliance issues.
Illinois Tool Works, Inc. Milwaukie #1016	STATE PRP	RI	INIT	Trichloroethene	groundwater soil	Risk assessment work plan received for review in September 1992 and comments returned. Revised work plan expected early November 1992.

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PROJECT NAME / LOCATION	LEAD/ Fund <u>Source</u>	CURR <u>Phase</u>		SUBSTANCES Of Concern	MEDIA CONTAMINATED	PROJECT ACTIVITY STATUS
J. H. Baxter Company-Eugene Eugene #55	STATE PRP	RĬ	C25	AS, CR, CU, PCP, creosote	groundwater soil	Off-site contamination with PCP extends 500'- 750' north. The work plan for groundwater extraction and treatment system was approved 6/10/92. The system is under construction and scheduled to be on line by December 1992.
Joseph Forest Products Joseph #61	FED MIXED	RD RA	INIT INIT	AS, CR, CU	groundwater soil	Cleanup to begin summer 1993 and include excavation and off-site disposal of contaminated soil, demolition of buildings, and groundwater monitoring.
L. D. McFarland Eugene #63	STATE PRP	RI	C75	РАН, РСР	groundwater soil	Results of September 1992 sampling have been reviewed by DEQ and indicate additional monitoring wells will be needed. McFarland submitted Draft Interim Action plan for site
Lakewood Estates Aurora #1038	STATE STATE	PA PD PM RI	INIT C75 C50 C50	Organics	groundwater	Interim treatment system for main water supply well planned for completion by November 1992. (See Elixir Industries and Ballweber projects for related activities).
Laurence-David, Inc. Eugene #65	STATE PRP	RI	C50	Chlorinated solvents, non- chlorinated solvents	groundwater soil	The lawsuit between PRPs was settled 7/1/92. LDI subsequently sued by insurance carrier in declaratory relief action. Trial scheduled for June 1993. An extension of RI report due date to 7/93 was granted.
Martin Marietta Reduction Facility The Dalles #72	FED PRP	RA	C75	Cyanide, F, PAHs, sulfates	groundwater soil	Remaining cleanup work to be completed includes institutional controls, unit process evaluation and report preparation.
McCormick & Baxter Creosoting Portland #74	STATE STATE		C75 C75	Metals, PCP, TCA, creosote	groundwater sedîment soil surface water	Plant closed. Final RI/FS reports received in September. Preparation of ROD underway.
Milwaukie Area Groundwater Contamination Milwaukie #706	STATE STATE		C25 C25	TCE, chlorinated solvents	groundwater	Emphasis on site discovery. Regional hydrogeological study initiated in October 1992.
Multnomah County Parks - Blue Lake Portland #1187	STATE STATE	PA	C75	TCA	Soil, groundwater	Phase I PA received and under review.
NorWest Publishing Portland #962	STATE STATE	PA	C75	TCA	soil, groundwater	PA report received; under review.
Northwest Pipe and Casing - Clackamas Clackamas #139	FED FED	PD R I	C75 INIT	PCB, PNAS, VOCS	groundwater soil surface water	EPA has assigned site to NPL List. DEQ is supporting EPA in some geophysical work & water levels. Field work began in October.

PROJECT NAME / LOCATION	lead/ Fund <u>Source</u>	CURR <u>Phase</u>		SUBSTANCES OF CONCERN	MEDIA <u>CONTAMINATED</u>	PROJECT ACTIVITY STATUS
Nu-Way Oil Co. Portland #88	STATE STATE	RI	INIT	PCB, VOCs, heavy metals, petroleum hydrocarbons	groundwater soil	RI/FS on hold due to lack of funding. Bonds sold 7/21/92 providing funding to continue work. Task Order issued for scoping removal assessment. Scoping meeting held 9/2/92. Final meeting summary report received 10/9/92.
Nu-Way Oil Security Portland #88	STATE PRP	Р М	INIT	PCB, VOCs, heavy metals, petroleum hydrocarbons	groundwater soil	Property owner has not complied with consent order. DEQ had security fence installed October 9, 1992.
OREMET - Alkali Lake Investigation Lake County #1253.	STATE PRP	SI PD	INIT INIT	lead, chromium, radium, 226, 228	soil	Final work plan received & field work completed week of July 6th. DEQ lab results received & forwarded.
Opti-Craft Portland #1186	STATE STATE	PA	C75	TCA	soil groundwater	PA report in review.
Pacific Detroit Diesel Allison Springfield #1031	STATE PRP	₽I	INIT	TCA, TPH, chlorobenzene	groundwater soîl	DEQ submitted comments on SI report 7/10/92. Revised SI report submitted 8/14/92. PDDA currently preparing plans to conduct a removal action.
Pendleton Grain Growers- Pendleton Pendleton #641	STATE STATE	PD	C75	pesticides	groundwater soil	Reviewed and generated comments on draft work plan for soil removal.
Portable Equipment Salvage Co. Clackamas #149	STATE PRP	RD	INIT	CU, PCB, PB, dioxin	soil	PP&L currently exploring disposal options for PCB and lead contaminated soils.
Portland General Electric - Station L - Op. Unit 3 Portland #151	STATE PRP	RI	C75	PAH, PCB, metals	groundwater soil	Final phase III soil report being prepared by PGE. Three groundwater monitoring wells installed in July 1992 Risk assessment due in November 1992.
Precision Castparts - Pltd. Titanium Facility Portland #274	STATE STATE	PA	INIT	solvents, PCBs, metals	unknown	Voluntary expanded PA requested. Precision Castparts will not voluntaril perform XPA. EPA to perform RCRA facil assessment and site investigation in Ju 1992.
Production Parts Milwaukie #1117	STATE STATE	PA	C25	TCE, PCE	groundwater	Voluntary PA submitted in early July. Need for further investigation identifi Production Parts to conduct voluntary X to address areas of concern.
Rhone-Poulenc - Doane Lake Facility Portland #155	STATE PRP	RI FS	C50 C25	Pesticides, VOCs, chlori- nated benzenes, chlori- nated phenolics, metals	groundwater soil surface water	Revised Phase II work plans received and under review by DEQ.
Schnitzer Investment Corp-Moody Portland #875	STATE PRP	FS	C25	CD, PCB, PB, VOCs, pesticides	soil	Meeting to discuss FS issues delayed to December 1992.
Southern Pacific - Milwaukie Milwaukie #1190	STATE PRP	PD RI	INIT INIT	TCE, PCE	groundwater soil surface water	Comments on draft work plan provided to Southern Pacific. Revised work plan to be submitted in December 1992.

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PROJECT NAME / LOCATION	lead/ Fund Source	curr <u>Phase</u>		SUBSTANCES OF CONCERN	MEDIA CONTAMINATED	PROJECT ACTIVITY STATUS
Springfield Area Groundwater Springfield #1049	STATE STATE	PD	INIT	TCA	groundwater	DEQ currently working with Springfield Utility Board to design groundwater monitoring network.
Stanley Proto Tool Milwaukie #1171	STATE STATE	PA	C75	solvents, metals	groundwater soil	PA equivalent submitted. DEQ determined need for further action at the facility. Referred to VCS.
Swift Adhesives Portland #884	STATE PRP	FS	C50	1,1,1TCA, 1,1DCA, TCE, 1,1DCE	groundwater soil	DEQ comments on draft RI submitted to Swift. Final report due 1/3/93.
Teledyne Wah Chang Albany #315	FED [.] PRP	RI FS	C75 C75	PCBs, metals, radio- nuclides, solvents	groundwater soil surface water	Most field work of Phase II remedial investigation completed. Buried drums discovered under Schmidt Lake now being removed. Draft RI/FS report received 10/15/92.
Teledyne Wah Chang Sludge Ponds Albany #315	FED PRP	RA	C75	metals, radionuclides, solvents	sludges	Confirmation sampling plan for Lower Rive solids pond and Schmidt Lake approved. Sampling of Schmidt Lake delayed due to drum removal.pond and Schmidt Lake
Tugman Park Landfill Eugene #843	STATE PRP	RI	INIT	metals, PAHs	soil surface water	The City of Eugene has selected a contractor. Preparation of detailed work plan will now begin. Work plan scoping meeting held with contractor on October 19, 1992.
Umatilla Army Depot Activity Hermiston #514	FED PRP	FS	C50	explosives, metals, pesticides	groundwater soil	RI report approved 8/21/92. Risk Assessment report approved 8/25/92. Public hearing on proposed plans for 3 operable units held 9/15/92. Cleanup chosen for lagoon soils unit on 9/30/92.
Union Pacific Railroad - The Dalles The Dalles #54	STATE PRP	RI FS	C75 C75	metals, PCP, VOCs, creosote	groundwater soil	Revised draft final RI report and draft FS report received 9/92. Riverfront Park cleanup completed, except for sediments in Columbia River near old pipeline. Further investigation in this area planned.
United Chrome Products, Inc. Corvallis #317	FED MIXED	OM	INIT	CR(VI),	groundwater soil	Operation and maintenance of groundwater extraction operating well. Consent decree signed by EPA, DEQ & City of Corvallis on cost settlement
Warn Industries Milwaukie #1118	STATE STATE	PA	C50	solvents, hydrocarbons	unknown	PA submitted and reviewed. XPA currently being performed by Warn Industries.
White King Lakeview #601	STATE STATE	FS RD	INIT INIT	unknown	unknown	New project. DEQ attended a meeting with Forest Service and EPA. Proposed plan is being developed. DOJ will assis in drafting a 3 party agreement.
Willamette Oaks Building Portland #883	STATE PRP	RI	C75	BTEX, PCE, TCE, long-chain hydrocarbons	groundwater soil	Investigation is complete. Report was received 3/19/92, and comments submitted. Two more wells to be installed. Grayco has contacted City about wells in park, installation
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PENDIX D

PROJECT ASSIGNMENT/STATUS Voluntary Cleanup Section

Voluntary Cleanup Section						
PROJECT NAME / LOCATION	lead/ Fund <u>Source</u>	CURR <u>Phase</u>		SUBSTANCES OF CONCERN	MEDIA <u>Contaminated</u>	PROJECT ACTIVITY STATUS
3M Medical Imaging Systems White City #1045	STATE PRP	RI	INIT	VOC	groundwater soil	Voluntary cleanup agreement signed 9/92. PA submitted 10/92.
Beaverton Honda Beaverton #1185	STATE PRP	RI	INIT	gasoline	soîl groundwater	A phase I RI work plan is being finalized.
Beaverton Mall Beaverton #691	STATE STATE	PD Pm	INIT INIT	chlorinated solvents	groundwater soil	Soil removal completed. 300 cubic yards of soil removed. 10,000 gallons of groundwater from excavation treated.
Bend Millwork Systems Bend #323	STATE PRP	SI	INIT	Chloropyriphos, Pentachlorophenol, Stoddard solvent	, soil	VCS has overseen preliminary work to characterize extent of PCP contamina- tion. Final investigation and cleanup pending BMS and DEQ review of applicabilit of RCRA wood preserving rule at site. review of applicability of RCRA wood preserving rule at site.
Bend-Research Inc. Bend #1158	STATE PRP	SI	INIT	cr, radionuclides	soil	PA complete. Developing sampling and removal plan.
Catellus Development Corp Milwaukie Milwaukie #887	STATE PRP	RI	INIT	creosote	soil groundwater	Agreement between VCS and Catellus for full site characterization signed 8/92. RI/FS proposal submitted and approved. Draft RI/FS work plan submitted 10/92.
Coos - Curry Electric Cooperative Coquille #1107	STATE PRP	RI	C25	unknown	unknown	Soil treatment and disposal alternatives are being evaluated.
Corvallis Disposal Co. Corvallis #1218	STATE PRP	PD	INIT	petroleum	soil	Monitoring groundwater.
Durametal Corporation Tualatin #258	STATE PRP	RI	C25	petroleum hydrocarbons, phenol, PCBs, metals	groundwater soil	Backfilling of clean portions of the excavation started. Met with Health Division to discuss sampling water wells in the area.
Eastern Oregon Correctional Institute Pendleton #1173	STATE PRP	VPA	INIT	unknown	unknown	Letter agreement signed 3/92 for oversight of PA. Site visit conducted on 5/28/92. Draft PA submitted and reviewed 8/26/92.
Eastside Machine Co. Creswell #1217	STATE PRP	PD	COMP	acetone, paint products	soil	Work plan for sediment sampling received and under review.
Farmcraft Tigard #1223	STATË PRP	VPA	INIT	pesticides	soil	XPA sampling plan in development.
GNB - Beaverton Beaverton #142	STATE PRP	RI	INIT	lead (Pb)	soil	VCS approved plans to remove lead-contaminated soils at loading dock construction zone in 8/91. Agreement between GNB & VCS to fully characterize site signed 8/92. RI/FS proposal submitted and approved 9/92.
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PROJECT NAME / LOCATION	Lead/ Fund <u>Source</u>	CURR Phase		SUBSTANCES OF CONCERN	MEDIA CONTAMINATED	PROJECT ACTIVITY STATUS
GNB - Salem Salem #358	STATE PRP	ХРА	INIT	lead oxide, petroleum	soil	VCS reviewed PA and Sampling Plan submitted 12/91. VCS and GNB agree on sample locations for XPA, 8/92. Work plan submitted 10/92.
Giustina Bros. Mill Eugene #1079	STATE PRP	WL	COMP	TCE, vinyl chloride	soil, groundwater	File currently under review.
Gunderson, Inc. Portland #1155	STATE PRP	₽D	INIT	unknown	unknown	Report delayed. File review to be completed upon receipt.
Houston's Inc. Portland #1052	STATE PRP	RI	INIT	TCE, DCE, PCE, petroleum, diesel	soil, groundwater	Meeting held with company to discuss recommendations 9/16/92. DEQ provided additional details on recommendations. Company prepared work plan 10/14/92.
Howard Cooper Facility Coburg #1229	STATE PRP	PD	INIT	chlorinated solvents, petroleum, hydrocarbons	soil, groundwater	DEQ waiting for revised work plan.
Infiniti Beaverton Beaverton #1106	STATE PRP	RI	INIT	chlorinated solvents, gasoline	groundwater soil	A phase I RI work plan is being finalized.
J. O. Olsen Manufacturing Co. Eugene #1254	STATE PRP	PD	INIT	petroleum hydrocarbons, pentachlorophenol	soil groundwater	File review summary memo completed; focused RI/FS recommended.
Jessup Company White City #1222	STATE State		INIT Comp	chlorinated solvents	groundwater	Expanded PA to include monitoring well installation and sampling proposed.
Linnton Oil Fire Training Grounds #1189 Portland	STATE PRP	RI	INIT	chlorinated solvents, petroleum hydrocarbons	soil groundwater	Meeting held 10/7/92 to discuss conceptual plan. Formal agreement for two phase RI/FS in preparation.
Mid-Coast Marine Shipyard Coos Bay #1174	STATE PRP	₽M	INIT	metals, TBT	sandblast grit, sediment	Final work plan provided and approved. Pilot study completed. Interim action completed. Report under preparation.
Mid-State Petroleum Inc. Albany #1209	STATE PRP	PD	INIT	hydrocarbons, petroleum	groundwater soil	DEQ performed site visit. Waiting for sampling results to be submitted.
Mill Creek Correctional Facility Salem #1175	STATE PRP	VPA	INIT	unknown	unknown	Letter agreement signed 3/92 for oversight of PA. Site visit conducted 5/92. Draft PA received 10/92.
National Guard Armory Salem #1172	STATE PRP	PD	INIT	TPH, halogenated compounds, metals	groundwater soil	Additional information necessary to complete file review received 10/16/92. Final review in progress.
Norpac Foods, Inc Salem Salem #1257	STATE PRP	RI	INIT	petroleum, diesel	soil	DEQ waiting for revised work plan.

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PROJECT NAME / LOCATION	lead/ Fund <u>Source</u>	curr Phase		SUBSTANCES OF CONCERN	MEDIA <u>Contaminated</u>	PROJECT ACTIVITY STATUS	i
North Marine Drive Portland #1170	STATE PRP	PD	C75	TPH, PCB, pesticides	groundwater soil	City of Portland developing plans for road construction. Nature of VCS involvement to be determined as construction proceeds.	
Northwest Aviation Independence #374	STATE PRP	RI	C25	unknown	unknown	The final work plan has been completed. A letter agreement addendum is being developed.	
Oregon Metallurgical II Albany #858	STATE PRP	PD	INIT	Chlorinated Solvents, Inorganics, PCBs,	soil, groundwater surface water	File review initiated.	
Oregon State Correctional Institute Salem #1176	STATE PRP	VPA	INIT	unknown	unknown	Letter agreement signed 3/92 for oversight of PA. Site visit conducted 4/92. Draft PA submitted and reviewed 5/92. Final PA submitted 9/8/92.	
Oregon State Penitentiary Salem #621	STATE STATE	RI	INIT	DCE, TCE, PCE	groundwater	Draft Interagency Agreement undergoing management approval. Work plan submit 9/18/92. DEQ provided comments. Final work plan received and approved.	ted
Oregon Wilbert Vault Corp. Clackamas #1154	STATE PRP	SI .	INIT	VOC's	soil	Groundwater sampling planned for November 1992.	
Oregon Women's Correctional Center Salem #1177	STATE PRP	VPA	INIT	unknown	unknown	Letter agreement signed 3/92 for oversight of PA. Site visit conducted 6/92. Draft PA submitted 10/92.	
Port of St Helens Railroad Avenue St. Helens #959	STATE PRP	PD	INIT	PAHs, arsenic	sediment, soil	Recommendations provided to the Port of St.Helens. Port is negotiating with other PRPs. Site returned to waiting list pending active response. EPA notified. DEQ requested site be posted. Signs currently being posted.	
RFD Publications, Inc. Tigard #1249	STATE PRP	₽D	INIT	halogenated solvents, hydrocarbons	soil	File review underway.	
Riverfront Research Park Eugene #1018	STATE PRP	RI	INIT	petroleum	soil	A draft intergovernmental agreement and scope of work is being negotiated. Field work was conducted on the Western and Millrace parcels.	
Santiam Correctional Institute Salem #1178	STATE PRP	VPA	INIT	unknown	unknown	Letter agreement signed 3/92 for oversight of PA. Site visit conducted 6/92. Draft PA submitted 10/92.	
Schoen Electric Albany #1195	STATE PRP	SI	INIT	petroleum hydrocarbons	soil	Sampling & Analysis plan reviewed. Memo with comments prepared and sent 8/26/92. Sampling and analysis Sampling & Analysis plan reviewed, plan approved 9/10/92.	

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PROJECT NAME / LOCATION	fund <u>Source</u>	curr <u>Phase</u>		SUBSTANCES OF CONCERN	MEDIA <u>Contaminated</u>	PROJECT ACTIVITY STATUS
Selmet, Inc. Albany #342	STATE STATE	PD	INIT	chlorinated solvents, inorganics	groundwater soil	Letter agreement signed. DEQ beginning file review.
Sheridan Mill Sheridan #1182	STATE PRP	PD	INIT	herbicides, insecticides	soil	Negotiations for a letter agreement are in progress.
Shiny Rock Mining Corp. Lyons #1251	STATE PRP	FS RA	COMP INIT	lead, cadmium, petroleum, dīesel	soil, tailings	Staff report on proposed remedial action approved. ROD prepared and undergoing approval process. Land farming in progress, Block-making completed. Evaluation of block disposition underway.
Simplot Soil Builders-Vale Vale #1216	STATE PRP	SI PD RI	INIT INIT INIT	1,2 - DCP, petroleum, diesel, pesticides	groundwater, soil	File summary and recommendations provided to Simplot. Latest investigation results reviewed. Revised work plan submitted. Draft agreement prepared. Negotiations underway.
South Fork Forest Camp Tillamook #1179	STATE PRP	VPA	INIT	unknown	unknown	Site visit conducted 6/92. Draft PA submitted 7/14/92. Final PA submitted 8/27/92.
South Waterfront Redevelopment - I Portland #602	STATE PRP	RI	c 50	Ba, Cr, Cu, PCB, Pb, Zn, petroleum hydrocarbons	groundwater soil	Continued investigation pending PDC Commissioners approval of additional funding.
South Waterfront Redevelopment - II Portland #602	STATE PRP	RA	c5 0	Metals, PCB, volatile organics	groundwater soil	Extension of Area A road continuing. Development in Area B completed. Stockpiled soils remain in Area C.
Southern Pacific Trans. Co. - Eugene Yards Eugene #312	STATE STATE		C50 INIT	hydrocarbons, petroleum	groundwater soil	Letter agreement signed. File review complete. Site visit scheduled.
Southern Pacific Transportation Company - Ashland #1146	STATE PRP	RI	INIT	petroleum products	soil, groundwater surface water	Agreement for RI/FS in preparation.
Wade Manufacturing Co. Tualatin #1199	STATE PRP	PD	INIT .	petroleum hydrocarbons	soil, groundwater	Monitoring wells installed and sampled. Bioremediation of petroleum hydrocarbon contaminated soil underway.

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	Dichloropropane	AC	Active	ACZA	Ammoniacal Copper Zinc Arsenate	APT	Aquifer Performance Test	
ARAR'S	Applicable Revelant Appropriate Requirements	AS	Arsenic	BA	Barium	BLA	Blue Lake Aquifier	
BTEX	Benzene, Toluene, Ethyl Benzene,	C	Closed	C25	25% Complete	C50	50% Complete	
C75	Xylene 75% Complete	CD	Cadmium	со	Closeout	COMPL	Complete	
	Chromium	CR(VI)		CU	Copper	DCA	Dichloroethane	
CR						DOGAMI		
DCE	Dichloroethylene	DEC	Consent Decree	DEQ	Dept. of Environmental Quality			
DOJ	Department of Justice	DRUGL	Drug Lab	EA	Endangerment Assessment	EPA	Environmental Protection Agency	
F	Fluorine	FED	Federal	FS	Feasibility Study	GW TR	Groundwater Treatment	
HRS	Hazard Ranking System	1	Inactive	IAG	Interagency Agreement	INIT	Initiated	
IRAM	Interim Remedial Action Measures	IW	Industrial well	LSI	Listing Site Inspection	LTR	Letter Agreement	
LUST	Leaking Underground Storage Tank Section	MEK	Methyl Ethyl Ketone	MG	Magnesium	MIXED	PRP and Agency	
NFA	No Futher Action	NPL	National Priorities List	OM	Operations and Maintenance	ORD	Consent Order	
PAH	Polyaromatic Hydrocarbons	PASI	Preliminary Assessment/Site Investigation	PB	Lead	РСВ	Polychlorinated Biphenyls	
PCE	Perchloroethylene	PCP	Pentachlorophenol	PD	Pre-remedial Development	PM	Pre-remedial Measures	
PNA	Polynuclear Aromatics	PRP	Potentially Responsible Party		Quality Assurance	RA	Remedial Action	
RAP	Remedial Action Plan	RCRA	Resource Conservation and	RD	Remedial Design	REMOV	Removal	
1.71	Remounder Rocton i tan		Recovery Act of 1976	110	Kenedrat Boorgi			
RI	Remedial Investigation	RIFS	Remedial Investigation/ Feasibility Study	ROD	Record of Decision	SAS	Site Assessment Section	
SGA	Sand & Gravel Aquifer	SI	Site Investigation	SITE	Superfund Innovative Technology Evaluation	SOW	Scope of Work	
SRS	Site Response Section	STA	State Technical Assistance Project	SUPER	Superfund	ť	Terminated	
TBT	Tri-Butyl-Tin	TCA	Trichloroethane	TCE	Trichloroethylene	TGA	Troutdale Gravel Aquifer	
ТРН	Total Petroleum Hydrocarbons	TRC	Technical Review Committee	TSA	Troutdale Sandstone Aquifer	UAO	Unilateral Administrative Order	
VC	Vinyl Cloride	VCS	Voluntary Cleanup Section	VOC	Volatile Organic Compounds	VPA	Voluntary Preliminary Assessment	
XPA	Extended Preliminary Assessment	ZN	Zinc		termine etämine sembeende		, , , , , , , , , , , , , , , , , , , ,	
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Memorandum

Date: January 15, 1993

то:	Michael	Downs,	through	Barbara	Burton Burto	-
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From:

Steven Desmond MSP

Subject: Operator Certification Biennial Report To The Legislature

Both the Health Division and the Department are to develop and submit a "joint" report to the Legislative Assembly regarding their respective Operator certification programs (ORS 448.409).

As has been the case in previous years, each program has produced a separate report and submitted both together under one cover letter. The Department's piece of the joint report covering wastewater system operator certification actions is attached in its final form for your review prior to submission to Fred Hansen and the EQC.

I understand that the Health Divisions draft report has been finalized. That piece of the joint report is being coordinated by Mary Alvey, Manager of the Health Division's Monitoring and Compliance Unit, Drinking Water Section (phone 731-4381). I do not yet have a copy.

I have also attached a draft cover memorandum for Fred Hansen and a draft cover letter for the joint report from the Department and the Health Division to the Legislative Assembly.

Please let me know if you have any questions or concerns.

Memorandum

To:	Environmental	Quality	Commission
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From: Fred Hansen, Director

Subject: Agenda Item M, January 28, 1993 EQC Meeting

<u>Review of report to the legislature on the Wastewater</u> <u>System Operator Certification Program</u>

Background

The 1987 Oregon Legislature passed HB 3386 (ORS 448.405 to 448.470, 448.992 and 448.994) referring to water and wastewater system (sewage treatment works) operator certification. ORS 448.409 requires a joint Biennial Report to the Legislative Assembly from the Health Division and the Department of Environmental Quality.

The Department's piece of this joint Biennial Report entitled, "WASTEWATER SYSTEM OPERATOR CERTIFICATION PROGRAM BIENNIAL REPORT TO THE LEGISLATURE, 1991 - 1992", is attached.

Statement of the Issues

As required by ORS 448.409, the report must include: 1) a summary of actions taken under the statute, 2) an evaluation of those actions, and 3) information and any recommendations, including legislative recommendations, the Department considers appropriate.

Requested Commission Action

It is requested that the Commission review the draft report, provide guidance for modifications if deemed appropriate, and approve submittal of the final report to the Legislature.

Approved:

section: <u>Ban</u>	bara Buiton
Division: Mich	al Downs
Report Prepared By:	Steve Desmond
Phone:	229- 6824
Date Prepared:	January 4, 1993

January 1993

The 1987 Oregon legislature enacted H.B. 3386 (ORS 448.405 to 448.470, 448.992 and 448.994) establishing a certification requirement for water and wastewater system operating personnel. The statute requires a joint biennial report to the Legislative Assembly from the Department of Environmental Quality and the Health Division.

Attached is the report which is a summary and evaluation of actions taken under ORS 448. Appropriate recommendations are included.

Respectfully Submitted,

Fred Hansen, Director Department of Environmental Quality Michael R. Skeels, Phd, MPH Division Administrator Health Division

William Wessinger, Chair Environmental Quality Commission

Wastewater System Operator Certification Program Biennial Report To The Legislature 1991 - 1992

following report, required by ORS 448.409, summarizes The activities of the Wastewater System (Sewage Treatment Works) Operator Certification Program (Program). The program is Department Of administered by the Environmental Quality (Department) under Oregon Administrative Rules, Chapter 340, Division 49 (OAR 340-49). The report complements a similar report prepared by the Oregon State Health Division on Drinking Water System Operator Certification.

PROGRAM INFORMATION

The Environmental Quality Commission adopted rules under OAR 340-49 (Rules) in 1988 as directed by the 1987 Oregon legislature, pursuant to ORS 448.408, et seq. A copy of the rules and statute are attached to this report. Forty-eight states now have mandatory certification requirements for system supervisors.

The purpose of the statute and implementing rules is to help protect public health and the environment, including Oregon's water resources, through proper operation and maintenance of wastewater systems by establishing specific qualifications and requirements for operating personnel.

The rules require that system owners must designate one or more certified operators to supervise the operation of their collection and/or treatment system(s). All principal system supervisors designated as such by a system owner must hold valid and proper certification with the program at a grade level (I-IV) that corresponds to the classification of system to be supervised.

Systems are classified by the Department in accordance with criteria under the rules in one of four classes (I-IV). Class IV systems are the most complex facilities and require the system supervisor hold a grade level IV certificate. A grade level IV certification has the highest required standards for education, training and experience.

The rules outline the criteria which the Department uses to classify systems. The criteria were established based on the experience and knowledge required to supervise various types of systems. Systems are classified according to size and complexity of operation.

For collection systems design population is a principal factor. For treatment systems, consideration is given for various elements such as process components, operational conditions, monitoring and testing, effluent disposal, solids handling and sludge (biosolids) management. The collection system (sewers) is ranked independently of the treatment system. It is possible for a wastewater system owner to have to have two different class systems, for example, a Class IV treatment system and a Class III collection system.

The rules establish a program whereby the Director may issue a certificate in system operation to qualified persons who meet specific requirements. To become certified, individuals must meet minimum qualifications for education, training, experience, and must pass a written examination. To maintain a certificate, the operator must demonstrate continuing professional growth in the field.

A growing number of persons certified with the program (estimated 60 percent), do so on a voluntary basis as they are not supervisors and therefore are not required to be certified under the rules. This voluntary growth is a healthy sign of the programs acceptance and will help assure a reservoir from which to draw qualified, professional and committed supervisors for the future.

The program presently issues certificates under three categories as follows:

- * Collection System Operation, Grade Levels I IV
- * Treatment System Operation, Grade Levels I IV
- * Provisional Collection or Treatment Operation, Grade Level I

With the exception of provisional certificates, all applicants must successfully complete an examination with an overall score of 70 percent or higher to obtain a standard renewable certificate. A person may qualify for a provisional certificate at grade level I if they are participating in Department-approved training and gaining on-the-job or "hands-on" work experience under the guidance of a certified operator. This certificate is not renewable and is valid for a period of one year.

To help assure compliance, the Department has incorporated certification, supervisory designation and reporting requirements into system operating permits which it issues under state and federal permitting programs. Department staff routinely determine permit compliance through self-monitoring reports, file record review and field compliance determination activities. When warranted, the Department may use its enforcement authority coupled with technical assistance to compel compliance.

The program continues to evolve to meet the needs of both system owners and operating personnel. In accordance with the rules, the Department has established a standing Wastewater System Operator Certification Advisory Committee to ensure continued representation of wastewater operators, system owners and the educational community in advising the Department on certification examination preparation and evaluating needs of the program. A copy of the roster of committee members is attached to this report.

SUMMARY OF SIGNIFICANT ACTIONS

During the biennium a data base was developed and enhanced to include information on system owner and system supervisor (operator) compliance. The data base includes system supervisory, classification and certified personnel information.

To help assure compliance with certification requirements, the Department began to incorporate certification requirements into all existing wastewater system operating permits, either by permit modification or through the permit renewal process. As of the end of this reporting period, over 90 percent of regulated system permits contained certification requirements including supervisory designation and reporting.

In a major effort to gain compliance with certification rules and associated reporting requirements now under operating permits, the Department issued over 65 "Notices of Non-compliance" to system owners (permittees) in May of 1992. The response to the notices was excellent with better than 80 percent taking corrective action leading to compliance.

The Department received and processed several requests for variances to the rules primarily focusing on legitimate time extensions to accommodate recruiting and/or additional training needs for supervisory personnel. During the biennium over 100 evaluations were conducted resulting in changes in system classifications for 30 systems. The Department reviews a system's classification any time there is a substantive change in the facility and/or the complexity of it's operation. Plan review, permit modifications and variance requests under the rules may trigger a review.

During this reporting period the Department administered a total of 594 examinations; 263 in 1991 and 331 in 1992. Regularly scheduled examinations were held twice annually at six sites around the State. In addition, the Department scheduled five special examinations to meet demonstrated needs, (i.e., hardship, compliance, geographic consideration, etc.).

Beginning in June of 1991, operators were allowed to apply for and receive certification in both collection and treatment at grade level I. This certification option has reduced costs to operators of smaller facilities as only one exam is now scheduled instead of two. Most small Class I systems (collection and treatment) are supervised by one person.

Written examinations periodically undergo review, including question validation and evaluation. Changes are made as appropriate to assure a "need to know" focus. In 1992, Oregon's wastewater examinations were submitted to the Association of Boards of Certification (ABC) for comparative assessment and evaluation with ABC standardized examinations. ABC found all Oregon examinations substantially equivalent to theirs and offered a reciprocal agreement (presently recognized by 26 certifying authorities). The Department is considering the merit of entering into such an agreement.

The Department continues to participate on the Environmental Services Advisory Committee (ESAC) for development and evaluation of training. Also, the Department has implemented a method of auditing renewal applications for required continuing education. the rules were not revised during the biennium.

EFFECTIVENESS OF ACTIONS

The Department's records indicate approximately 93 percent of wastewater system owners required to have certified operators have met the requirement. This figure is up from 50 percent when the mandatory requirement went into effect in July of 1989.

A number of indicators show continued support of the program including, increased employer preference for certification as evidenced by current recruiting practices, promotional and pay incentives, and increased employer support for professional skill training. Minimum standards have been elevated for employment for both supervisory and operating staff as evidenced by an increasing number of utilities now requiring certification as a prerequisite for employment for non-supervisory positions.

Effectiveness may also be indicated by the increasing number of operating personnel participating in continuing education as reported by sponsors and providers of wastewater related training. The Pacific Northwest, and Oregon specifically, has probably more continuing education offerings in the form of workshops, seminars, short schools and community college classes, than any other region in the nation. Oregon's two community colleges (Clackamas and Linn-Benton) which provide one-year certificate and two-year degree programs in water/wastewater technology report a full student load.

In 1991, the program completed the first renewal process where continuing education was required. Over 900 operators reported training far in excess of the minimum combined total of 1800 CEU's required to demonstrate professional growth in the field. (Note: each operator must earn a minimum of 2.0 Continuing Education Units (CEU's) or college hours. 2.0 CEU's equals 20 contact hours of training). Many operators had either not participated in training before or had been away from continuing education for many years.

Today, system owners (employers) have a larger and more qualified operator pool from which to recruit than ever before. Competition for employment is keen, even for positions at entry level.

The Department believes that certification continues to play a key role in improving the day-to-day operation of Oregon's wastewater systems. Having qualified (trained and certified) persons operating these systems helps to assure optimization of facilities designed and built to protect public health and the environment.

CURRENT PROGRAM STATUS

As of December 31, 1992 Oregon's certification program had 1452 persons certified in wastewater collection and/or treatment system operation. One of every four certified operators (27%) hold both wastewater collection and treatment system certification. The total number of valid certificates at the biennium's end was 1840. Program records indicate that the number of operating personnel certified under the program continues at a net annual growth rate of about 3 percent. The number of operators certified in both collection and treatment system operation has risen from 21 to 27 percent or one in four.

Certificates by reciprocity from other states numbered 48 during the biennium. A reciprocity certificate was issued at the grade level where the person demonstrated that all minimum qualifications as established under the rules were met for education, training, work experience <u>and</u> successfully completing a substantially equivalent written examination.

Wastewater Certificates

<u>Grade Level</u>	·	<u>Collection</u>		<u>Treatment</u>
Provisional	(I)	20		52
Ι		194		341
II		313	7	253
III		136		140
IV		<u>155</u>		236
	Total	818	+	1022 = 1840

Wastewater Examinations 1991 - 1992

Certificate		Passing		
<u>Grade Level</u>	<u>Collection</u>	Rate	<u>Treatment</u>	<u>Rate</u>
Combined (C/T) I	56	84%	(56)	(84%)
I	73	96%	152	89%
II	61	92%	110	87%
III	14	85%	75	69%
IV	9	89%	44	74%
Total	. 213		381	

Oregon Classified Wastewater Systems

<u>System Class</u>	<u>Collection</u>	<u>Treatment</u>
I	165	265
II	116	85
III	28	36
IV	_26	_32
Т	otal 335	418

Program Revenue And Expenditures

As of November 30, 1992 the Department has collected \$30,765.00 in operator certification fees (1991 -1993 Biennium). In carrying out the program, the Department has expended \$116,046.00 through November 30, 1992. It is estimated that the Department will receive an additional \$60,000.00 in fees, including renewal fees, prior to the end of the biennium. The total program expenditures for the fiscal biennium are estimated at \$164,000.00. The remaining expenditures not funded by certification fees are funded by permit fees, federal funds, and general funds.

RECOMMENDATIONS

The Department has no recommendations for any changes to the program at this time.

ATTACHMENT 1

OREGON ADMINISTRATIVE RULES

DEPARTMENT OF ENVIRONMENTAL QUALITY

CHAPTER 340

DIVISION 49

REGULATIONS PERTAINING TO CERTIFICATION OF WASTEWATER SYSTEM OPERATOR PERSONNEL

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OREGON ADMINISTRATIVE RULES

DEPARTMENT OF ENVIRONMENTAL QUALITY

CHAPTER 340

DIVISION 49

REGULATIONS PERTAINING TO CERTIFICATION OF WASTEWATER SYSTEM OPERATOR PERSONNEL

[ED. NOTE: The Tables referred to within the text of this division may be found at the end of this division.]

PREFACE

- (1) The purpose of these rules is to help protect public health, the environment, and the water resources of Oregon through proper operation and maintenance of wastewater collection and treatment systems by establishing requirements regarding certification of wastewater treatment works personnel. The principal objectives of the rules are to:
 - (a) Establish criteria for classifying wastewater treatment and collection systems;
 - (b) Define the requirements of wastewater system owners whose systems must be supervised by a person who holds a valid certificate at a grade level equal to or greater than wastewater treatment works classification;
 - (c) Define the minimum qualifications for certifying personnel and those who supervise the operation of wastewater systems in accordance with wastewater systems classifications;
 - (d) Define the requirements and fees for persons who apply for certification including examination requirements, renewal certification and certification through reciprocity;
 - (e) Establish criteria for variances;
 - (f) Establish penalties for violations of these rules; and
 - (g) Assure a reservoir of qualified wastewater treatment system personnel that are certified to operate and maintain sewage treatment works systems in Oregon.

(2) Certification, under these regulations, is available to all personnel who meet the minimum qualifications in a given classification and grade. All wastewater system personnel are encouraged to apply for certification in the highest classification and grade consistent with their qualifications. Maintenance and laboratory personnel in wastewater systems are encouraged to participate in the respective voluntary certification programs.

DEFINITIONS

340-49-010

As used in these regulations unless otherwise required by context:

- "Approved Dry Weather Flow" means the average dry weather design capacity of the sewage treatment system as approved by the Department, or the population equivalent design of the system.
- (2) "Certified", for the purpose of these rules, means an individual holds a current Oregon wastewater operator/collection certificate issued by the Department of Environmental Quality.
- (3) "Commission" means the Environmental Quality Commission.
- (4) "Continuing Education Unit (CEU)" means a nationally recognized unit of measurement for assigning credits for education or training that provides the participant with advanced or post high school learning. One CEU is equivalent to 10 contact hours of lecture and/or formal organized training conducted under responsible sponsorship, capable direction and qualified instruction. Forty-five CEU are equal to one year of post high school education (30 semester hours or 45 college quarter hours).
- (5) "Contract Operations" means the wastewater system owner has a written contract with a wastewater treatment systems operations company entity or person for supervising the operation of the wastewater system in accordance with these rules.
- (6) "Department" means the Department of Environmental Quality.
- (7) "Director" means the Director of the Department of Environmental Quality or any official designee of the Director.
- (8) "Industrial Waste" means liquid wastes from an industrial or commercial process discharged into a sanitary sewer system for conveyance and treatment.
- (9) "NPDES" permit means a waste discharge permit issued in accordance with requirements and procedures of the National Pollutant Discharge Elimination System authorized by the Federal Clean Water Act and OAR Chapter 340, Division 45.

- (10) "Oral Examination" means an examination administered by the Department where the applicant provides verbal answers to the written examination for the level of certification the applicant is seeking.
- (11) "Population" means the design population of the sewage works system represented as the number of people or the population equivalent the system is designed to serve. Equivalent population ordinarily is determined based on 70 gallons per person per day approved dry weather design flow or 0.17 lbs BOD₅ per person per day whichever is greater.
- (12) "Provisional Certificate" means a temporary certificate issued by the Department to a person meeting the requirements of these rules.
- (13) "Post High School Education" means education acquired through programs such as short schools, bona fide correspondence courses, trade schools, community colleges, colleges, formalized workshops, seminars, etc., for which continuing education credit or college credit is issued by the training sponsor. One year of post high school education is equal to 30 college semester hours, 45 college quarter hours, or 45 CEUs.
- (14) "Shift Supervisor" means the person to whom the system owner designates authority for executing the specific practice and procedures for operating the wastewater system when the system is operated on more than one daily shift. The shift supervisor is not required to be on-site. The shift supervisor shall be available to the system owner and to any other operator during the shift supervisor's assigned shift. The system owner is not required to have a shift supervisor if another certified supervisor is available.
- (15) "Supervise" means responsible for the technical operation of a sewage treatment works system performance which may affect its performance or the quality of the effluent produced by such sewage treatment works.
- (16) "Supervisor" means the person to whom the system owner designates the authority for establishing and executing the specific practice and procedures for operating the wastewater system in accordance with the policies of the owner of the system and the permit requirements. The supervisor may be employed part-time when acting as the supervising party in a contractual agreement for wastewater treatment systems with an approved dry weather design flow of less than 75,000 gallons per day. The supervisor is not required to be on site at all times. The supervisor or part-time supervisor shall be available to the system owner and to any other operator.
- (17) "Wastewater" (Sewage) means the water-carried human or animal waste, from residences, buildings, industrial establishments or

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other place, together with such groundwater infiltration and surface water as may be present. The admixture of domestic and industrial waste, or other byproducts, such as sludge, shall also be considered sewage.

- (18) "Wastewater Treatment System" (Sewage Treatment Systems) for the purpose of these rules and as defined in ORS 454.010, means any structure, equipment or process treating and disposing of domestic waste and sludge including industrial waste discharged to sewage treatment works.
- (19) "Wastewater Collection System" (Sewage Collection System) for the purpose of these rules means the trunks, arterials, pumps, pump stations, piping and other appurtenances necessary to collect domestic and/or industrial líquid wastes from a community, individual, corporation or entity, which produces sewage or other liquid waste treatable in a community or private wastewater treatment facility.
- (20) "Wastewater Systems" means any structure, equipment or process required to collect, carry away and treat domestic waste and dispose of sewage as defined in ORS 454.010".
- (21) "Wastewater System Personnel" (Sewage System Personnel) means any person engaged in the on-site, day-to-day operation of a wastewater treatment system or a wastewater collection system. It is not intended that this title shall include city officials, county managers, engineers, directors of public works or equivalent, whose duties do not include the actual operation or on-site supervision of facilities and/or operator personnel. Other common terms that mean the same are wastewater treatment operator and wastewater collection system operator.
- (22) "WPCF" permit means a Water Pollution Control Facilities permit to construct and operate a collection, treatment and/or disposal system with no discharge to navigable waters. A WPCF permit is issued by the Department in accordance with the procedures of OAR Chapter 340, Division 14 and Division 45.

GENERAL REQUIREMENTS

- (1) After July 1, 1989, each wastewater system owner with an approved dry weather design flow 75,000 gallons per day or greater shall have their system supervised by one or more operators who hold a valid certificate at a grade level equal to or greater than the wastewater treatment system classification.
- (2) After July 1, 1989, any wastewater system owner with a system having more than one daily shift shall have their shift

supervisor, if any, certified at no less than one grade level lower than the wastewater system classification.

- (3) After July 1, 1989, each wastewater system owner with an approved dry weather design flow less than 75,000 gallons per day shall either have their system supervised by one or more operators who hold a valid certificate at a grade level equal to or greater than the wastewater treatment system classification, or contract for part-time supervision with an operator who holds a valid certificate at a grade level equal to or greater than the wastewater treatment system classification.
- (4) Owners of on-site wastewater disposal systems permitted in accordance with ORS 454.605 are exempt from these requirements.
- (5) By July 1, 1989, and in accordance with permit conditions thereafter, each wastewater system owner shall file with the Department the name of operators designated the responsibility of supervising the operation of their wastewater system in accordance with these rules. The wastewater system owner may redesignate or replace designated operators with other properly certified operators at any time and shall notify the Department in writing within 30 days of replacement or redesignation of operators certified in accordance with these rules.
- (6) A wastewater system may not be without an individual certified at the classification of the system more than 30 days. During this period, the system owner must ensure a person certified no less than one grade lower than the system classification is available to the system owner and to any other operator.

CLASSIFICATION OF WASTEWATER SYSTEMS

340-49-020

- (1) All wastewater systems shall be classified by the Department as a wastewater treatment system and wastewater collection system, as appropriate, in accordance with the following classification system:
 - (a) Wastewater Treatment Systems:

(b) Wastewater Collection Systems:

(A)	Class	Ι.			1,500 or less design population.
(B)	Class	II			1,501 to 15,000 design population.
(C)	Class	III			15,001 to 50,000 design population.

(D) Class IV 50,001 or more design population.

- (2) Wastewater treatment system classifications shall be derived by the total points assigned based on criteria shown in Table 1, OAR 340-49-025.
- (3) The Director shall advise wastewater system owners of the classification of their system(s).
- (4) If the complexity of a wastewater treatment system is not reflected in Table 1 -- Criteria for Classifying Wastewater Treatment Systems (OAR 340-49-025), the Director may designate a classification higher than that which would be based on accumulated points upon written notice to the wastewater treatment system and in accordance with OAR 340-45-005, et seq., and OAR 340-14-005, et seq., as applicable. The designation shall be consistent with the intent of the classification system.
- (5) If deemed appropriate, the Director may designate a classification for a wastewater collection system higher than that which would be solely based on population upon written notice to the wastewater collection system and in accordance with permit issuance procedures contained in OAR 340-45-005, et seq., and OAR 340-14-005, et seq., as applicable. The designation shall be consistent with the intent of the classification system.
- (6) The Director may change the classification of a wastewater system upon written notice to the system owner in accordance with OAR 340-45-005, et seq., and OAR 340-14-005, et seq., as applicable, and shall give the owner a reasonable time to comply with the requirements of the new classification.
- (7) The wastewater system owner may appeal the classification of their system in accordance with OAR 340-49-075, Variances, and OAR 340-45-005, et seq., or OAR 340-14-005, et seq.

MINIMUM QUALIFICATIONS FOR WASTEWATER TREATMENT OPERATOR CERTIFICATION, NEW CERTIFICATES AND CERTIFICATE UPGRADES

- (1) Classifications are established as follows: Wastewater Treatment System Operator, Grade Levels I-IV; and Provisional Wastewater Treatment System Operator; Wastewater Collection System Operator, Grade Levels I-IV, and Provisional Wastewater Collection System Operator; Combination Wastewater Treatment and Collection Systems Operator, Grade Level I and Combination Wastewater Treatment and Collection System Operator, Grade Level II.
 - (a) Wastewater Treatment System Operator Levels:

- (A) Provisional Wastewater Treatment System Operator: Persons may qualify for a Provisional Certificate to obtain on the job training and experience to meet the Wastewater Treatment System Operator Grade Level I qualifications if they are:
 - (i) Employed at a wastewater treatment system,
 - (ii) Have completed high school or equivalency,
 - (iii) Are participating in or have completed a Department approved training program, and
 - (iv) Are supervised full or part-time by a certified wastawater treatment system operator. The Provisional Certificate will be current for a period of 12 months after which the individual must have passed a Grade Level I exam within the 12-month period. Upon passing the Grade Level I examination and obtaining 12 months experience at a wastewater treatment system, the individual will receive a Grade Level I certificate. It shall remain valid for the remaining certification period in which the Provisional certificate was granted.
- (B) Grade Level I Wastewater Treatment System Operator Certification Qualifications. Persons may qualify for this classification and grade level if they meet the following qualifications:
 - (i) Education: Completion of high school or equivalency, and
 - (ii) Experience: Twelve (12) months experience at a Class I or higher Wastewater Treatment Plant, and
 - (iii) Exam: Satisfactorily pass Wastewater Treatment Plant Operator Grade Level I examination.
- (C) Grade Level II Wastewater Treatment System Operator Certification Qualifications. Persons may qualify for this classification and grade level if they meet the following qualifications:
 - (i) Education: Completion of high school or equivalency, and
 - (ii) Experience: Three (3) years at a Class I or higher Wastewater Treatment System, or two (2) years at a Class I or higher Wastewater Treatment System and one (1) year of post high school education, and

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- (iii) Exam: Satisfactorily pass Wastewater Treatment Operator Grade Level II examination.
- (D) Grade Level III Wastewater Treatment System Operator Certification Qualifications. Persons may qualify for Operator Grade Level III Certification if they meet the following qualifications:
 - (i) Education: Completion of high school or equivalency, and
 - (ii) Experience: Eight (8) years experience, of which half must have been at a Class II or higher Wastewater Treatment System, or
 - (I) Five (5) years experience, of which half must have been at a Class II or higher Wastewater Treatment System, and one year of post high school education, or
 - (II) Four (4) years experience, of which half must have been at a Class II or higher Wastewater Treatment System, and two years post high school education, or
 - (III) Three (3) years experience, of which half must have been at a Class II or higher Wastewater Treatment System, and three years of post high school education, and
 - (iii) Exam: Satisfactorily pass a Wastewater Treatment Operator Grade Level III examination.
- (E) Grade Level IV Wastewater Treatment System Operator Certification Qualifications. Persons may qualify for Operator Grade Level IV Certification if they meet the following qualifications:
 - (i) Education: Completion of high school or equivalency, and a minimum of one year post high school education, and
 - (ii) Experience: Ten (10) years experience, of which half must have been at a Class III or higher Wastewater Treatment System, or
 - (I) Six (6) years experience, of which half must have been at a Class III or higher Wastewater Treatment System, and two years of post high school education, or
 - (II) Five (5) years experience, of which half must have been at a Class III or higher

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Wastewater Treatment System, and three years of post high school education, or

- (III) Four (4) years experience, of which half must have been at a Class III or higher Wastewater Treatment System, and four years post high school education, and
- (iii) Exam: Satisfactorily pass a Wastewater Treatment Operator Grade Level IV examination.
- (b) Wastewater Collection System Operator:
 - (A) Provisional Wastewater Collection System Operator: Persons may qualify for a Provisional Certificate to obtain on the job training and experience to meet the Wastewater Collection System Operator Grade Level I qualifications if they are:
 - (i) Employed at a wastewater collection system,
 - (ii) Have completed high school or equivalency,
 - (iii) Are participating in or have completed a Department approved training program, and
 - (iv) Are supervised full or part-time by a certified wastewater collection system operator. The Provisional Certificate will be current for a period of 12 months after which the individual must have passed a Grade Level I written exam within the 12-month period. Upon passing the Grade Level I exam and obtaining 12 months experience at a wastewater collection system, the individual will receive a Grade Level I certificate current for the remaining certification period in which the Provisional certificate was granted.
 - (B) Grade Level I Wastewater Collection System Operator Certification Qualifications: Persons may qualify for this classification and grade level if they meet the following qualifications:
 - (i) Education: Completion of high school or equivalency, and
 - (ii) Experience: Twelve (12) months at a Class I or higher Wastewater Collection System, and
 - (iii) Exam: Satisfactorily pass a Wastewater Collection System Operator Grade Level I examination.

- (C) Grade Level II Wastewater Collection Wastewater Operator Certification Qualifications. Persons may qualify for this classification and grade level if they meet the following qualifications:
 - (i) Education: Completion of high school education or equivalency, and
 - (ii) Experience: Three (3) years at a Class I or higher Wastewater Collection System, or two (2) years at a Class I or higher Wastewater Collection System, and one year of post high school education, and
 - (iii) Exam: Satisfactorily pass a Wastewater Collection System Operator Grade Level II examination.
 - (D) Grade Level III Wastewater Collection System Operator Certification Qualifications. Persons may qualify for this classification and grade level if they meet the following qualifications:
 - (i) Education: Completion of high school or equivalency, and
 - (ii) Experience: Eight years experience, of which half must have been, at a Class II or higher Wastewater Collection System, or
 - (I) Five (5) years experience, of which half must have been at a Class II or higher Wastewater Collection System, and one year of post high school education, or
 - (II) Four (4) years experience, of which half must have been at a Class II or higher Wastewater Collection System, and two years post high school education, or
 - (III) Three (3) years experience, of which half must have been at a Class II or higher Wastewater Collection System, and three years of post high school education, and
 - (iii) Exam: Satisfactorily pass a Wastewater Collection System Grade Operator Level III examination.
 - (E) Grade Level IV Wastewater Collection System Operator Certification Qualifications. Persons may qualify for this classification and grade level, if they meet the following qualifications:

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- (i) Education: Completion of high school or equivalency, and
- (ii) Experience: Ten (10) years experience, of which half must have been at a Class III or higher Wastewater Collection System, or
 - (I) Eight (8) years experience, of which half must have been at a Class III or higher Wastewater Collection System, and one year of post high school education, or
 - (II) Six (6) years experience, of which half must have been at a Class III or higher Wastewater Collection System, and two years of post high school education, or
 - (III) Five (5) years experience, of which half must have been at a Class III or higher Wastewater Collection System, and three years of post high school education, or
 - (IV) Four (4) years experience, of which half must have been at a Class III or higher Wastewater Collection System, and four years post high school education, and
- (iii) Exam: Satisfactorily pass a Wastewater Collection System Operator Grade Level IV examination.
- (c) Wastewater Treatment System and Wastewater Collection System Grade Level I Combination Certificate: Persons may qualify at renewal for this certificate provided they meet the minimum qualifications set forth in OAR 340-49-030(1)(a)(B) and 030(1)(b)(B) for wastewater treatment system and wastewater collection system personnel Grade Level I.
- (d) Wastewater Treatment System and Wastewater Collection System Grade Level II Combination Certificate: Persons may qualify at renewal for this certification classification provided they meet the minimum qualifications set forth in OAR 340-49-030(1)(a)(C) and 030(1)(b)(C) for wastewater treatment system and wastewater collection system personnel Grade Level II.
- (2) The Department shall give credit to meet experience qualifications set forth in OAR 340-49-030(1) for related experience up to 50 percent, in any of the following areas, with the total in any of related experience credit not to exceed 6 months:
 - (a) Wastewater sewage treatment systems operations.

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- (b) Wastewater collection systems operations and maintenance.
- (c) Water treatment system operations.
- (d) Water distribution system operations.
- (e) Water treatment laboratory.
- (f) Wastewater treatment laboratory.
- (g) Wastewater treatment systems maintenance.
- (h) Industrial waste treatment operations and maintenance. -
- (3) Education credit can be gained in programs such as short schools, bona fide correspondence courses, trades schools, community colleges, formalized workshops, seminars, and other training for which CEU is given by the training sponsor.
- (4) The Department shall consider the relevance of the subject matter covered at seminars, workshops, conferences, and other training sessions when evaluating the education qualifications of an applicant for certification.
- (5) The applicant for certification has the responsibility for providing experience and education records to the Department for screening and evaluating the applicant's qualifications.

CERTIFICATION OF WASTEWATER TREATMENT AND COLLECTION SYSTEM PERSONNEL

340-49-035

- All applications received under the Department administered Voluntary Certification temporary rules and until September 9. 1988, shall be processed in accordance with the Voluntary Certification Program rules.
- (2) Those persons holding a current voluntary Oregon Wastewater Treatment Operator or Collection System Operator certificate issued by the Department before May 1, 1989, shall be issued certificates by the Director upon receipt of a completed renewal application. These certificates shall be issued for the same classification and grade as the certificate issued under the voluntary program, unless an upgrade certificate has been obtained.
- (3) The Director shall issue certificates to persons meeting the education and experience qualifications set forth in OAR 340-49-030, and who satisfactorily pass the exam for the classification and grade level sought.

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- (4) From the date of adoption of these rules and until May 1, 1989, Wastewater Collection Personnel may apply for Collection Certification or Upgrade Collection Certification based on the education and experience qualifications. No written examination will be required. After May 1, 1989, all applicants for Wastewater collection certification will be required to meet all qualifications for certification in 340-49-030(b) including the requirement of passing a written examination.
- (5) Each certificate issued shall designate the classification and grade of the person certified.

CERTIFICATE AND RENEWAL

340-49-040

- All certificates issued by the Department before May 1, 1989 shall be valid until June 30, 1989.
- (2) Beginning July 1, 1989 and thereafter, a certificate may be renewed for a two-year term to those who submit a complete renewal application and payment of the fee required by OAR 340-49-065.
- (3) The Department will send each certificate holder a renewal notice at least 60 days before the certificate lapses. Notice will be mailed to the last address of record. Failure to receive notice does not relieve the holder of responsibility to renew the certificate.
- (4) For a certificate or renewal issued after May 1, 1989, the next and subsequent renewal of a certificate shall be based on demonstration of continued professional growth in the field. An operator shall submit satisfactory evidence of completion of approved training of a minimum of two (2) CEUs as a condition for renewal of the certificate. An operator holding more than one certificate issued under these rules, need only complete the training required to satisfy renewal requirements for one of these certificates.

REINSTATEMENT OF LAPSED CERTIFICATES

- Renewal applications received by May 1, 1989 will not require reexamination if the certificate has not lapsed more than three years.
- (2) After May 1, 1989, an operator seeking renewal of a lapsed certificate may submit an application for renewal within 180 days after the certificate lapses without reexamination. Upon receipt of application, including proof that all qualifications have been

met and payment of the fee required by OAR 340-49-065, the Director shall renew the certificate.

(3) After May 1, 1989, the Department will require re-examination of an operator whose renewal application is post-marked more than 180 days after the certificate lapses.

CERTIFICATE AND RECIPROCITY

OAR 340-49-050

- (1) The Director may accord a person with a valid certificate in another state or province reciprocal treatment and issue a certificate without examination when, in the judgment of the Director, the certification requirements in the other state or province are substantially equivalent to the requirements set forth in these rules.
- (2) When such reciprocity is granted, the person shall be subject to the same requirements of renewal as any other person initially certified by these rules.

EXAMINATIONS

- (1) Persons applying for a new certification or to be certified at a higher grade level must be examined, except pursuant to OAR 340-49-035(4), file a completed application and payment of the fee required by OAR 340-49-065 at least 30 days before the date set for an examination, and meet the education and experience qualifications for the classification and grade level sought.
- (2) The Department will notify the applicant of eligibility for an examination.
- (3) Persons accepted for examination shall be examined at the next scheduled examination date, unless the Department at its discretion, chooses to administer an exam at times in addition to the scheduled exams.
- (4) A minimum score of 70 percent correct answers is required to satisfactorily pass an examination.
- (5) Any person who fails an examination may repeat such examination at a later date upon submittal of a complete application and fee.
- (6) Examination shall consist of material in content and level appropriate to each classification and grade level.

- (7) Examinations shall be administered by the Department or its designee, at places and times scheduled by the Department, with 60 days public notice of the schedule. A minimum of two examinations shall be scheduled per calendar year.
- (8) The Department, at its discretion, may administer written or oral examinations at times other than those scheduled.
- (9) All examinations will be graded by the Department, or its designee, and the applicant shall be notified of grade attained and pass or fail. Examinations will not be returned to the applicant.

CERTIFICATION FEES

340-49-060

- All persons applying for certification shall be subject to the fee schedule contained in OAR 340-49-065 (Table 2).
- (2) Upon the Department receipt of an application and fee, the fee shall be non-refundable, unless no action has been taken on the application, the Department determines that no fee is required, or the Department determines the wrong application has been filed.
- (3) All fees shall be made payable to the Department of Environmental Quality.

CONTRACTS FOR PART-TIME SUPERVISION

- When a wastewater system owner enters into a contract for parttime supervision with a certified operator to comply with OAR 340-49-015(3), the contract shall include the following:
 - (a) The parties involved, including names, addresses and phone number of each, and certification class and grade of the operator(s).
 - (b) The specific starting date and expiration date of the contract.
 - (c) The minimum number of visits to be made to the wastewater treatment works system(s) by the contract supervisor.
 - (d) The duties and responsibilities of each party involved.
- (2) The contract for supervision shall be sufficient such that a contracted certified operator shall be available to respond on-

site upon request of the wastewater system owner and to any other operator.

- (3) The Director may require the wastewater system owner to make changes to the contract if the wastewater treatment system is in violation with the conditions of the permit.
- (4) The owner of the wastewater treatment works systems shall maintain the contract on file for Department review.

VARIANCES

340-49-075

- (1) The Director may grant variances from requirements of wastewater system owners when it is demonstrated to the satisfaction of the Department that strict compliance with the rule would be highly burdensome or impractical due to special conditions or causes; and when the public or private interest in the granting of the variance is found by the Department to clearly outweigh the interest of the application of uniform rules.
 - (a) A request for a variance must be submitted in writing by the wastewater system owner required to comply with these rules and shall include justification for the requested variance.
 - (b) The variance request shall be evaluated and processed by the Department as a permit action in accordance with OAR 340-45-005, et seq. and OAR 340-14-005, et seq., as applicable.
 - (c) The Director shall notify the wastewater system owner of the decision to grant or deny a variance in accordance with applicable permit issuance procedures, set forth in OAR 340-45-005, et seq., and OAR 340-14-005, et seq.
 - (d) If the Director denies the variance, the system owner may request a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director within 20 days of the date of mailing of the notification of the variance decision. Any hearing held shall be conducted pursuant to the regulations of the Department.

REFUSAL AND REVOCATION OF CERTIFICATE AND APPEAL PROCESS

340-49-080

 The Director may refuse to issue or revoke the certificate of any person in accordance with the procedures set forth in OAR 340-11-097, et seq. Grounds for revocation of a certificate shall be:

- (a) Obtaining a certificate by fraud, deceit, or misrepresentation, or
- (b) Proven gross negligence, incompetence or misconduct in performance of duties as an operator, or
- (c) Failure of the operator to comply with the lawful orders, rules or regulations of the Department, or
- (d) False or fraudulent report or record by the operator regarding the operation or supervision of the treatment system.
- (2) If the Director believes that good cause exists to suspend or revoke a person's certificate, the Director shall give notice to the person of opportunity for hearing in accordance with 340-11-100^N
- (3) The Director, after a period of twenty-four (24) months, may reinstate any person whose certificate has been revoked upon presentation of evidence satisfactory to the Director, which warrants such reinstatement. The Director may require reexamination as a condition of the certificate reinstatement.

PENALTY PROVISIONS

340-49-082

- Any wastewater system owner, municipal or private, who knowingly and willfully violates any of the provisions of these rules, may be subject to:
 - (a) Criminal penalties according to provisions under ORS 448.992 or ORS 448.415(2).
 - (b) Civil penalties according to OAR Chapter 340, Division 12 for violations of provisions of NPDES or WPCF permits.
- (2) Any individual who knowingly and willfully violates any provision of these rules may be subject to revocation of certification, and criminal penalties under ORS 448.992 or 448.415(2).

ADVISORY COMMITTEE

- (1) By October 31, 1988, the Department shall establish an Advisory Committee to:
 - (a) Assist in developing examinations.

- (b) Evaluate the effectiveness of the program.
- (c) Recommend needs of the program.
- (2) Advisory Committee meetings shall be scheduled at least twice a year.
- (3) The composition of the Committee shall include, at a minimum, representatives of operators, system owners, and the educational community.

(October, 1989)

OAR 340-49-025

Criteria for Classifying Wastewater Treatment Systems

 Design Population or Population Equivalent

> Less than 750 751 to 2000 2001 to 5000 5001 to 10,000 Greater than 10,000

Points

1

1

2

1

2

1

2

5

7

2

3

point

poínt

points

point

points

point

points points

points

points

points

- 0.5 point
- 1 point
- 1.5 points
- 2 points
- 3 points plus 1 point . per 10,000

(2) Approved Dry Weather Design Flow (MGD)

- Less than 0.0750.5 pointGreater than 0.075 to 0.1 MGD1 pointGreater than 0.1 to 0.5 MGD1.5 pointsGreater than 0.5 to 1.0 MGD2 pointsGreater than 1.0 MGD3 points plus, 1 pointper 1 MGD
- (3) Unit Processes

Pre-Treatment

Comminution Grit Removal, Gravity Grit Removal, Mechanical Screen(s), Mechanical Influent Pump Station Flow Equalization Unit

Primary Treatment

Community Septic Tank(s) Clarifier(s) Flotation Clarifier(s) Chemical Addition System Imhoff Tank

Secondary Treatment

Low Rate Trickling Filter(s)7pointsHigh Rate Trickling Filter(s)10points

Trickling Filter - Solids Contact System 12 points Single mode activated sludge less 6 points than 0.1 MGD

Two or more modes activated sludge	8	points
less than 0.1 MGD		
Single mode activated sludge greater	10	points
than 0.1 MGD		
Two or more modes activated sludge	15	points
greater than 0.1 MGD		
Pure oxygen activated sludge	20	points
Activated Bio Filter Tower less than	6	points
0.1 MGD	• •	•
Activated Bio Filter Tower greater	12	points
than 0.1 MGD	7	
Rotating Biological Contact 1 to 4 shafts	7	points
Rotating Biological Contact,	12	points
5 or more shafts	14	pornes
5 OF MOTE SHALES		
Stabilization Lagoons,	5	points
1 to 3 cells without aeration	-	
Stabilization Lagoons,	7	points
2 or more cells with primary aeration	,	pornee
Stabilization Lagoons,	9	points
2 or more with full aeration	,	porneo
Recirculating gravel filter	7	points
Chemical Precipitation unit(s)	3	points
Gravity Filtration Unit(s)	2	points
Pressure Filtration Unit(s)	4	points
Nitrogen Removal,	4	points
Mechanical or chemical system		P • 1
Nitrogen Removal,	2	points
Biological/anoxic system		•
Phosphorus Removal units	4	points
Effluent Microscreen(s)	2	points
Chemical Flocculation units	3	points
Anaerobic Primary Sludge Digester(s)	5	points
without Mixing and Heating		
Anaerobic Primary Sludge Digester(s)	7	points
with Mixing and Heating		
Anaerobic Primary and Secondary	10	points
Sludge Digesters	_	
Sludge Digester Gas reuse	3	points
Aerobic Sludge Digester(s)	8	points
Sludge Storage Lagoon(s)	2	points
Sludge Lagoon(s) with aeration	3	poínts
Sludge Drying Bed(s)	1	point
Sludge Air or Gravity Thickening	3	points
Sludge Composting, in Vessel	12	points
Sludge Belt(s) or Vacuum Press(es)	5	points
/Dewatering	e	
Sludge Centrifuge(s)	5	points
Sludge Incineration	12	points
Sludge Chemical Addition Unit(s)	2	points

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	Non-Beneficial Sludge Disposal Beneficial Sludge Utilization	1 3	point points
	Liquid chlorine disinfection Gas chlorine disinfection Dechlorination system Other disinfection systems including ultraviolet and ozonation	2 5 4 5	points points points points
(4)	Effluent Permit Requirements		
5.a.	Minimum of secondary effluent limitations for BOD and Total Suspended solids	2	points
	Minimum of 20 mg/l BOD and Total Suspended Solids	3	points
	Minimum of 10 mg/1 BOD and Total Suspended Solids	4	points
	Minimum of 5 mg/l BOD and Total Suspended Solids	5	points
	Effluent limitations for effluent oxygen	1	point
(5)	Raw Waste Variation. Points in this category w conditions are extreme, to the extent that ope procedure changes are needed to adequately tre variation of raw waste.	rati	on and handling
	Conveyance and Treatment of Industrial wastes covered by the federal pretreatment program	4	points
(6)	Sampling and Laboratory Testing		
	Samples for BOD, Tocal Suspended Solids performed by outside laboratory.	2	points
	BOD, Total Suspended Solids performed at treatment plant.	4	points

Fecal Coliform analysis performed by 1 points outside laboratory.

Fecal Coliform analysis performed at 2 points treatment plant.

Nutrient, Heavy Metals, or Organics by 3 points outside laboratory.

Nutrients, Heavy Metals and/or Organics 5 points performed at treatment plants.

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TABLE 2

OAR 340-49-065

Fee Schedule for Wastewater Treatment Works Systems Operator Certification

Application Type	Fee
New Certification Includes examination	\$ 50.00
Renewal Certification (2-Year Renewal Period)	\$ 40.00
Certification to a higher grade Includes examination	\$ 35.00
Certification through Reciprocity	\$ 55.00
Reinstatement of Lapsed Certificate	\$ 50.00

Persons applying for a Wastewater Treatment and Collection System Operator Grade Level I or Grade Level II Combination Renewal Certificate (OAR 340-49-030(1)(d)) must only submit a single renewal fee.

Fees are non-refundable upon making application, except as provided in OAR 340-49-060(2).

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Chapter 448

1991 EDITION

Swimming Facilities; Water and Sewage Systems

448.280

SWIMMING FACILITIES

448.005 Definitions for ORS 448.00	05 to	448.090
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- 448.011 Authority of Health Division
- 448.015 Applicability of ORS 448.005 to 448.090
- 448.020 Permit required to construct swimming
- facilities 448.030 Permit application; contents; issuance or denial; plan review and construction permit fees
- 448.035 Annual license required to operate; fees; expiration date
- 448.037 Variance; application; fee
- 448.040 Entry on premises for inspection purposes; reports
- 448.051 Inspection of facilities; suspension or revocation of permit or license; hearings on suspension or revocation
- 448.060 Closing facility
- 448.090 Disposition of moneys
- 448.095 Natural bathing places exempt
- 448.100 Delegation to county to administer ORS 448.005 to 448.060; standards; fees; suits involving validity of administrative rule

WATER SYSTEMS

(Generally)

- 448.115 Definitions for ORS 448.115 to 448.285
- 448.119 Application of ORS 448.119 to 448.285 to water systems
- 448.123 Purpose
- 448.127 Short title

(Administration)

- 448.131 Water quality, construction and installation standards; effect on existing facilities
 448.135 Variances; notice to customers; compliance schedules; notice; hearing
 448.140 Operation on permit
 448.145 When permit may be issued; compliance schedule; hearing; notice
- 448.150 Duties of division
- 448.155 Personnel training; public information
- 448.160 Emergency plans
- 448.165 · Local government water service plans
- 448.170 Division agreement to authorize local government to exercise duties
- 448.175 Division authority to order compliance
- 448.180 Waiver of construction standards
- 448.250 Remedy when system a health hazard;
 special master; sale of system
 448.255 Notice of violation; content; hearing; or-
- 448.255 Notice of violation; content; hearing; order; appeal
 448.265 Prohibited actions; puisance abatement
- 448.265 Prohibited actions; nuisance abatement
- 448.268 Area of ground water concern; declaration
- 448.271 Transfer of property that includes well; 448.992 testing; effect

- (Federal Safe Drinking Water Act Administration)
- 448.273 Federal Safe Drinking Water Act administration
- 448277 Health Division as administrator

(Civil Penalties)

- Civil penalties; notice
- 448.285 Penalty schedule; factors to be considered in imposing penalty
- 448.290 Process for imposing civil penalty

(Jurisdiction of Cities)

- 448.295 Jurisdiction of cities over property used for system or sources
- 448.300 City ordinance authority
- 448.305 Special ordinance authority of certain cities
- 448.310 Investigation of complaints
- 448.315 Special police to enforce ORS 448.295
- 448.320 Jurisdiction over violations of city ordinances
- 448.325 Injunction to enforce city ordinances

(Water Pipes and Fittings)

448.30 Moratorium of pipe and fittings for potable water supply; acceptability criteria; exceptions

OPERATOR CERTIFICATION FOR SEWAGE TREATMENT WORKS AND POTABLE WATER TREATMENT PLANTS

(Generally)

- 448.405 Definitions for ORS 448.405 to 448.470
- 448.407 Advisory committee to commission and division

448.409 Biennial report

(Sewage Treatment Works)

- 448.410 Authority and duties of Environmental Quality Commission
- 448.415 Certification required for operators
- 448.420 Special certification provisions
- 448.425 Deposit and use of fees
- 448.430 Certification exception

(Potable Water Treatment Plants)

- 448.450 Authority and duties of Health Division
- 448.455 Certification required for operators
- 448.460 Special certification provisions
- 448.465 Deposit of fees
- 448.470 Certification exception

PENALTIES

- Penalties for violations of swimming facility or water system requirements
- Sewage treatment works violation penalties

448.990

448.994 Potable water treatment plant violation penalty

CROSS REFERENCES

Administrative procedures and rules of state agencies, 183.310 to 183.550

Deaths or injuries to be reported, Ch. 146

Discrimination in public places, 30.670

District boundary changes, 199.464

Safe drinking water projects, 285.757

Swimming pools, joint construction and operation by local governments, Ch. 190

448.100

County authority to restrain violation of public health laws, 431.157

448.115 to 448.285

Declaration of area of ground water concern, 468B.175 Declaration of ground water management area, 468B.180

448.305

Health hazard annexation or district formation, facilities and services, boundaries, 431.705 to 431.760 448.315

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Police standards and training, 181.610 to 181.690

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(9) "Supervise" means to operate or to be responsible for directing employees that are responsible for the operation of a water system.

(10) "Water distribution system" means that portion of the water system in which water is stored and conveyed from the potable water treatment plant or other supply point to the premises of a consumer.

(11) "Water system" includes sewage treatment works or potable water treatment plants and water distribution systems that have 15 or more service connections used by year-round residents or that regularly serve 25 or more year-round residents. [1987 c.635 §1]

Note: 448.405 to 448.470 and 448.992 and 448.994 were enacted into law by the Legislative Assembly but were not added to or made a part of ORS chapter 448 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

448.407 Advisory committee to commission and division. To aid and advise the Environmental Quality Commission and Health Division in the adoption of rules under ORS 448.410 and 448.450, the Director of the Department of Environmental Quality and the Assistant Director for Health shall appoint an advisory committee. The members of the committee shall include but need not be limited to representatives of all types of water systems. [1987 c635 §16]

Note: See note under 448.405.

448.409 Biennial report. On or before January 1, 1989, and biennially thereafter, the Department of Environmental Quality and Health Division shall develop and submit a joint report to the Legislative Assembly. The report shall include, but need not be limited to:

(1) A summary of actions taken under ORS 448.405 to 448.470, 448.992 and 448.994;

(2) An evaluation of the effectiveness of such actions; and

(3) Any information and recommendations, including legislative recommendations the department or the division considers appropriate. [1987 c.635 §17]

Note: See note under 448.405.

(Sewage Treatment Works)

448.410 Authority and duties of Environmental Quality Commission. (1) The commission shall:

(a) Adopt rules necessary to carry out the provisions of ORS 448.410 to 448.430 and 448.992.

(b) Classify all sewage treatment works. In classifying the sewage treatment works, the commission shall take into consideration size and type, character of wastewater to be treated and other physical conditions affecting the sewage treatment works and the skill, knowledge and experience required of an operator.

(c) Certify persons qualified to supervise the operation of sewage treatment works.

(d) Subject to the prior approval of the Executive Department and a report to the Emergency Board prior to adopting the fee, establish a schedule of fees for certification under paragraph (c) of this subsection. The fees established under the schedule shall be sufficient to pay the costs incurred by the department in carrying out the provisions of ORS 448.410 to 448.430 and 448.992 and shall be within the budget authorized by the Legislative Assembly as that budget may be modified by the Emergency Board.

(2) The commission may grant a variance from the requirements of ORS 448.415, according to criteria established by rule by the commission.

(3) In adopting rules under this section, the commission shall consult with the Health Division in order to coordinate rules adopted under this section with rules adopted by the Health Division under ORS 448.450. [1987 c.635 §2; 1991 c.703 §9]

Note: See note under 448.405.

448.415 Certification required for operators. (1) Except as provided in ORS 448.430, any sewage treatment works, whether publicly or privately owned, used or intended for use by the public or private persons must be supervised by an operator certified pursuant to ORS 448.410. The operator's certification must correspond to the classification of the sewage treatment works supervised by the operator.

(2) Except as provided in ORS 448.430, a person may not:

(a) Allow any sewage treatment works to be operated unless the operator is certified or the sewage treatment works is supervised by an operator certified under the provisions of ORS 448,410 to 448,430 and 448.992.

(b) Perform the duties of an operator unless the person is certified under the provisions of ORS 448.410 to 448.430 and 448.992. [1987 c.635 \S 3, 4]

Note: See note under 448.405.

448.420 Special certification provisions. On and after September 27, 1987, an operator holding a current Oregon sewage treatment certification issued under a voluntary certification program shall be considered certified under the program established under ORS 448.410 at the same classification and grade. Certification of operators by any state that, as determined by the director, accepts certifications made under ORS 448.410 to 448.430 and 448.992, shall be accorded re-

448.420

try and determine any prosecution brought under such ordinance. If prosecution is had in a justice of the peace court or a district court, the court shall remit to the city, after deducting court costs, the amount of any fine collected, except as otherwise provided by ORS 46.045 (2). If a jail term is imposed, the convicted person shall be confined in the city jail or in the county jail and if confined in the county jail the county shall be entitled to recover from the city the actual costs of such incarceration. [Formerly 449.328]

448.325 Injunction to enforce city ordinances. In cases of violation of any ordinance adopted under ORS 448.300 or 448.305 any city or any corporation owning a domestic water supply source or the community water supply system for the purpose of supplying any city or its inhabitants with water may have the nuisance enjoined by civil action in the circuit court of the proper county. The injunction may be perpetual. [Formerly 449.340]

(Water Pipes and Fittings)

448.330 Moratorium of pipe and fittings for potable water supply; acceptability criteria; exceptions. (1) The Assistant Director for Health may prohibit the sale of water pipe used to carry potable water and solders, fillers or brazing material used in making up joints and fittings in this state and the installation or use of water pipe used to carry potable water and solders, fillers or brazing material used in making up joints and fittings in any private or public potable water supply system or individual water user's lines until such time as the assistant director determines that adequate standards exist and are practiced in the manufacture of water pipe used to carry potable water and solders, fillers or brazing material used in making up joints and fittings to insure that the pipe and solder do not present a present or potential threat to the public health in this state.

(2) The Assistant Director for Health shall adopt, by rule, product acceptability criteria for water pipe used to carry potable water and solders, fillers or brazing material used in making up joints and fittings for water supply purposes which insure that the pipe and solder do not present a threat to the public health in this state. The Health Division shall be responsible for the monitoring of the sale and use of water pipe used to carry potable water and solders, fillers or brazing material used in making up joints and fittings for compliance with the product acceptability criteria. The Building Codes Agency shall cooperate with, and assist, the Health Division in its monitoring efforts.

(3) No water pipe used to carry potable water or solders, fillers or brazing material used in making up joints and fittings which does not conform to the product acceptability criteria adopted under subsection (2) of this section shall be sold in this state or installed in any part of any public or private potable water supply system or individual water user's lines.

(4) Notwithstanding subsection (1) or (3) of this section, the Assistant Director for Health may grant exemptions from any prohibition of the sale or use of water pipe used to carry potable water for the emergency repair or replacement of any existing part of a water supply system, or for the necessary use by a well driller in the installation of a well. The assistant director may require any person using water pipe used to carry potable water under this subsection to notify the Health Division of the date and location of that use. [1979 c.535 §1; 1987 c.414 §152]

OPERATOR CERTIFICATION FOR SEWAGE TREATMENT WORKS AND POTABLE WATER TREATMENT PLANTS

(Generally)

448.405 Definitions for ORS 448.405 to 448.470. As used in ORS 448.405 to 448.470:

(1) "Commission" means the Environmental Quality Commission.

(2) "Department" means the Department of Environmental Quality.

(3) "Director" means the Director of the Department of Environmental Quality.

(4) "Division" means the Health Division of the Department of Human Resources.

(5) "Operator" means a person responsible for the operation of a potable water treatment plant, water distribution system or sewage treatment works.

(6) "Person" means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality or any other political subdivision of this state, any interstate body or any other legal entity.

(7) "Potable water treatment plant" means that portion of a water system that in some way alters the physical, chemical or bacteriological quality of the water being treated.

(8) "Sewage treatment works" means any structure, equipment or process required to collect, carry away and treat domestic waste and dispose of sewage as defined in ORS 454.010. ciprocal treatment and shall be recognized as valid and sufficient within the purview of ORS 448.410 to 448.430 and 448.992, if in the judgment of the director, the certification requirements of such state are substantially eqr that to the requirements of ORS 44. 0 to 448.430 and 448.992 or any rule adopted under ORS 448.410 to 448.430 and 448.992. [1987 c.635 §5]

Note: See note under 448.405.

448.425 Deposit and use of fees. Any fees collected pursuant to the schedule adopted under ORS 448.410 shall be deposited in the General Fund of the State Treasury to the credit of the Department of Environmental Quality. Such fees are continuously appropriated to the department to pay the cost of administering the provisions of ORS 448.410 to 448.430 and 448.992. [1987 c.635 §6]

Note: See note under 448.405.

448.430 Certification exception. The requirements of ORS 448.415 shall not apply to:

(1) Any sewage treatment works with an approved design flow of less than 75,000 gallons a day, if the owner has contracted with a certified operator to provide part-time supervision as the commission by rule determines necessary; or

(2) A subsurface sewage disposal system as defined in ORS 454.605. [1987 c.635 §7]

Note: See note under 448.405.

(Potable Water Treatment Plants)

MAS.450 Authority and duties of Health Di Di. (1) The Health Division shall:

(a) Adopt rules necessary to carry out the provisions of ORS 448.450 to 448.470, 448.992 and 448.994.

(b) Classify all potable water treatment plants and water distribution systems actually used or intended for use by the public. In classifying the potable water treatment plants and water distribution systems, the division shall take into consideration size and type, character of water to be treated and other physical conditions affecting the treatment plants and distribution systems and the skill, knowledge and experience required of an operator.

(c) Certify persons qualified to supervise the operation of a potable water treatment plant or a water distribution system.

(d) Subject to the prior approval of the Executive Department and a report to the Emergency Board prior to adopting the fee, establish a schedule of fees for certification under paragraph (c) of this subsection. The fees established under the schedule shall be sufficient to pay the cost of the division in carrying out the provisions of ORS 448.450 to 448.470, 448.992 and 448.994 and shall be within the budget authorized by the Legislative Assembly as that budget may be modified by the Emergency Board.

(2) The division may grant a variance from the requirements of ORS 448.455 according to criteria established by rule by the division.

(3) In adopting rules under this section, the division shall consult with the Department of Environmental Quality in order to coordinate rules adopted under this section with rules adopted by the Environmental Quality Commission under ORS 448.410. [1987 c.635 §9; 1991 c.67 §125; 1991 c.703 §10]

Note: See note under 448.405.

448.455 Certification required for operators. Except as provided in ORS 448.470, any potable water treatment plant or water distribution system whether publicly or privately owned, used or intended for use by the public or private persons must be supervised by an operator certified pursuant to ORS 448.450. The operator's certification must correspond to the classification of the water treatment plant or distribution system supervised by the operator.

(2) Except as provided in ORS 448.470, a person may not:

(a) Allow any potable water treatment plant or water distribution system to be operated unless the operator is certified or the potable water treatment plant or water distribution system is supervised by an operator certified under the provisions of ORS 448.450 to 448.470, 448.992 and 448.994.

(b) Perform the duties of an operator unless the person is certified under the provisions of ORS 448.450 to 448.470, 448.992 and 448.994. [1987 c.635 §§10, 11]

Note: See note under 448.405.

448.460 Special certification provisions. On and after September 27, 1987, an operator holding a current Oregon water treatment certification issued under a voluntary certification program shall be considered certified under the program established under ORS 448.450 at the same classification and grade. Certification of operators by any state that, as determined by the division, accepts certifications made under ORS 448.450 to 448.470, 448.992 and 448.994, shall be accorded reciprocal treatment and shall be recognized as valid and sufficient within the purview of ORS 448.450 to 448.470, 448.992 and 448.994, if in the judgment of the Assistant Director for Health, the certification requirements of such state are substantially equivalent to the requirements of ORS 448.450 to 448.470, 448.992 and 448.994 or any rule adopted under ORS 448.450 to 448.470, 448.992 and 448.994. [1987 c.635 §12]

Note: See note under 448.405.

448.465 Deposit of fees. Any fees collected pursuant to the schedule adopted under ORS 448.450 shall be deposited in the General Fund of the State Treasury to the credit of the Health Division. Such fees are continuously appropriated to the department to pay the cost of administering the provisions of ORS 448.450 to 448.470, 448.992 and 448.994. [1987 c.635 §13]

Note: See note under 448.405.

448.470 Certification exception. (1) The requirements of ORS 448.455 shall not apply to a water system for which the source of water is ground water and that has less than 150 service connections. However, the operator of a water system exempt under this section shall not be exempt from any continuing educational requirements established by rule by the Health Division.

(2) The requirements of ORS 448.455 shall not apply to a water system that is directly supervised by a registered professional engineer who has a valid certificate to practice engineering issued under ORS 672.002 to 672.325. [1987 c.635 §14; 1989 c.1091 §1]

Note: See note under 448.405.

PENALTIES

448.990 Penalties for violation of swimming facility or water system requirements. (1) Violation of ORS 448.005 to 448.090 by any person, firm or corporation, whether acting as principal or agent, employer or employee, is punishable, upon conviction, by a fine of not less than \$25 nor more than \$500 or by imprisonment in the county jail not exceeding six months, or by both. Each day that the violation continues is a separate offense.

(2) Violation of any of the following is punishable as a Class A misdemeanor:

(a) Any rule of the Health Division adopted pursuant to ORS 448.115 to 448.330.

(b) Any order issued by the Health Division pursuant to ORS 448.175.

(c) ORS 448.265 or 448.315 (2)(a). [Amended by 1967 c.344 §8; subsections (2) to (5) enacted as 1973 c.835 §177; 1975 c.254 §18; part renumbered subsection (5) of 468.990; 1983 c.271 §4]

448.992 Sewage treatment works violation penalties. (1) Except as provided in subsection (2) of this section, any person who knowingly and willfully violates ORS 448.415 (2) shall upon conviction be punished by a fine of not more than \$500 per day of violation or imprisonment for not more than six months, or both.

(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under ORS 448.410 to 448.430, or by any rule adopted under ORS 448.410 to 448.430, shall upon conviction, be punished by a fine of not more than \$500 or by imprisonment for not more than six months, or both. [1987 c.635 §8]

Note: See note under 448.405.

448.994 Potable water treatment plant violation penalty. (1) Except as provided in subsection (2) of this section, any person who knowingly and willfully violates ORS 448.455 (2) shall upon conviction be punished by a fine of not more than \$500 per day of violation or imprisonment for not more than six months, or both.

(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under ORS 448.450 to 448.470 and 448.992, or by any rule adopted under ORS 448.450 to 448.470 and 448.992, shall upon conviction, be punished by a fine of not more than \$500 or by imprisonment for not more than six months, or both. [1987 c.635 §15]

Note: See note under 448.405.

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ATTACHMENT 3

WASTEWATER SYSTEM OPERATOR CERTIFICATION ADVISORY COMMITTEE MEMBERS

- J. Michael Read, Chair City of Portland 5001 N. Columbia Blvd. Portland, OR 97203
- 2. Gerald W. Breazeale League of Oregon Cities' Designate (City of Madras) 416 Sixth Street Madras, OR 97741
- 3. Glen R. Hogue City of La Grande, Public Works Department 800 X. Avenue La Grande, OR 97850
- John Lewis Clackamas Community College 19600 S. Molalla Ave. Oregon City, OR 97045
- 5. Leo B. Lightle City of Brookings 898 Elk Drive Brookings, OR 97415
- Holly Mason Linn-Benton Community College Water/Wastewater Dept.
 6500 SW Pacific Blvd. Albany, OR 97321
- 7. Terry D. Penhollow SunRiver Utilities P.O. Box 3699 SunRiver, OR 97707
- Paul D. Rogers Oregon State Parks 525 Trade Street Salem, OR 97310

- Wayne Weaver Bear Creek Sanitary Authority
 3915 S. Pacific Hwy. Medford, OR 9750110.
- 10. Stephen R. Yoder City of Silverton 1453 Pine Street Silverton, OR 97381

Environmental Quality Commission

 \Box Rule Adoption Item

□ Action Item

□ Information Item

Agenda Item <u>N</u> January 29, 1993 Meeting

Title:

Periodic Rule Review

Summary:

State agencies are required to review their administrative rules every three years. This report is the result of internal rule review as well as public comment. The review is intended to analyze whether rules should be amended, rescinded, or retained without change, with an empasis on minimizing economic effect on businesses.

DEQ solicited comments from over 7,000 individuals who have at least once requested information about rules. The agency received 24 responses. Programs conducted internal rule reviews.

The Department's rules largely do not need revision. This is because many of them are new or have recently been revised. Also, the criteria listed in the statute were considered when the rules were created. In general, the agency uses advisory committees to develop rules. These committees help ensure that the rulemaking includes consideration of economic effects.

Department Recommendation:

It is recommended that the Commission accept the rule review reports as presented in the staff report and attachments.

area Manuster Alla. **Report** Author **Division** Administrator Director

[†]A large print copy of this report is available upon request.

Date: January 29, 1992

To: Environmental Quality Commission

From: Fred Hansen, Director

Subject: Agenda Item N, January 29, 1993 EQC Meeting

Periodic Rule Review Report

Statement of the Issue

State agencies are required to review their rules every three years. The Department has completed the required review, including internal and public input for Oregon Administrative Rules chapter 340, divisions 11 through 180. This agenda item is a report on the process and the recommendations.

Background

ORS 183.545-550 requires state agencies to review all of their administrative rules every three years. The review process is intended to analyze whether rules should be amended, rescinded, or retained without change. It also requires an analysis of ways to minimize the impact of rules on business and whether small business is impacted disproportionately.

The Department reviews and updates rules frequently due to program development, changing federal laws, and required EPA review of certain programs. Throughout these rule changes, the Department relies extensively on advisory committees and public input.

The process officially began in September of 1991 when notices were sent to names on any lists that would imply they were interested in DEQ rules. The Department used 49 lists and solicited public comment from over 7,000 individuals. The Department received 24 written responses and the programs also conducted internal rule reviews.

The internal rule reviews and analysis of public comments have been compiled as Attachments A and B to this agenda item.

Memo To: Environmental Quality Commission Agenda Item N January 29, 1993 Meeting Page 2

Authority to Address the Issue

The statute requiring periodic rule review has been in place since 1981 and states:

ORS 183.545-183.550.

183.545 Review of rules to minimize economic effect on businesses.

Each agency periodically, but not less than every three years, shall review all rules that have been issued by the agency. The review shall include an analysis to determine whether such rules should be continued without change or should be amended or rescinded, consistent with the stated objectives of applicable statutes, to minimize the economic effect on businesses and the effect due to size and type of business.

183.550 Public comment; factors to be considered in review. (1) As part of the review required by ORS 183.545, the agency shall invite public comment upon the rules. (2) In reviewing the rules described in subsection (1) of this section, the agency shall consider:

(a) The continued need for the rule;

(b) The nature of complaints or comments received concerning the rule from the public;

(c) The complexity of the rule;

(d) The extent to which the rule overlaps, duplicates or conflicts with other state rules or federal regulations and, to the extent feasible, with local governmental regulations;

(e) The degree to which technology, economic conditions or other factors have changed in the subject area affected by the rule; and

(f) The statutory citation or legal basis for each rule.

Summary of Any Prior Public Input Opportunity

Of the 7,000 individuals who received the rule review notice, 24 responded in written comments. Some of the responses were general and did not refer to any specific rules. The comments that were relevant to a specific rule were forwarded to the appropriate program for analysis. Comments and analysis are described in Attachment B.

Conclusions

• As required by statute, the Department has evaluated its rules based on the listed criteria. The rules are determined largely not to need revision because they were recently created or revised and impact on business was taken into account. Many of DEQ's rules are reviewed and changed regularly as required by federal and

Memo To: Environmental Quality Commission Agenda Item N January 29, 1993 Meeting Page 3

state law. DEQ relies heavily on advisory committees when creating rules. The advisory committees always include representatives of businesses that would be affected. This serves as a built in process for minimizing the impact on business.

• The Department needs to update the following rules by the projected dates:

Air Quality housekeeping changes, Agenda item J, January 29, 1993 Division 40, Groundwater, expected in 1995 Division 41, State-wide water quality management plan, Fall 1994 Division 44, Waste disposal wells, 1995 Division 45, NPDES and WPCF permits, mid-1993 Division 49, Certification of water system operators, mid-to-late 1993 Division 50, Land application and disposal of sewage sludge, mid-1993 Division 61, Solid waste management, Spring 1993 Division 71, On-site sewage disposal, Fall 1993 Division 110, PCBs, Summer 1993

Division 111, Used oil/road oiling, mid-1993

Recommendation for Commission Action

It is recommended that the Commission accept the rule review reports as presented in Attachments A and B of the Department Staff Report for Agenda Item N.

Attachments

- A. Rule Review Reports from internal review in programs
- B. Rule Review public comments, analysis, and recommendations
- C. Public notice of Rule Review
- D. Index of Department rules

Approved:

Section:

Division:

Report Prepared By: Elana Stampfer

Phone: 229-5889

Date Prepared: December 29, 1992

			1991/2 PERIODIC RULE REVIEW CHECKLIST DEQ AIR QUALITY DIVISION
RUL	E: <u>OAR</u>	340-	
REVI	EWER:		DATE:
Α.	SIMP	LE CI	LEAN-UP ISSUES:
1.	YES		THERE ARE TYPOGRAPHICAL AND/OR GRAMMATICAL ERRORS IN THE RULE. IF YES, SPECIFY:
2.			THE RULE CONTAINS CITATIONS TO:ANOTHER RULE; ANOTHER SECTION WITHIN THE SAME RULE;THE FR OR CFR; ORTHE ORS. IF YES:
			YES NO ALL CITATIONS ARE CORRECT. IF NO, LIST INCORRECT AND CORRECT CITATIONS:
3.			THE RULE CONTAINS DEFINITIONS OR SPECIFIES THE APPLICABILITY OF A RANGE OF RULES. IF YES: YES NO
			THE RANGE OF RULES AFFECTED IS SPECIFIED. IF NO, LIST CORRECT RANGE:
4.			THE RULE REQUIRES SOURCE TESTING OR CONTAINS AN EMISSION STANDARD. IF YES:
			YES NO TEST METHODS ARE CORRECTLY REFERENCED. IF NO, SPECIFY METHOD:
5.			THE RULE IS (OR SHOULD BE) PART OF THE STATE IMPLEMENTATION PLAN (SIP). IF YES: YES NO
			THE LAST TIME THE RULE WAS AMENDED, OAR 340-20-047 WAS ALSO AMENDED.

в.

ISSUES THAT MAY REQUIRE MORE EVALUATION:

	YES	NO	EVAL UATE	
1.				THE RULE IS STILL NEEDED.
2.				THE RULE SHOULD BE SIMPLIFIED.
3.				THE RULE LIKELY CONFLICTS WITH OR UNNECESSARILY DUPLICATES OTHER FEDERAL, STATE OR LOCAL LAW.
4.				THE RULE LIKELY COULD BE REVISED TO REDUCE ECONOMIC IMPACT OR ENHANCE JOB PRODUCING ENTERPRISES WITHOUT UNDERMINING ITS PURPOSE OR 'VIOLATING FEDERAL OR STATE LAW.
5.				THE RULE LIKELY NEEDS TO BE REVISED DUE TO CHANGES IN TECHNOLOGY OR OTHER FACTORS.
c.	OTHEI	R INFO	ORMATI	CON:
1.	YES	NO		TORY AUTHORITY EXISTS FOR THE RULE. LIST THE DRITY (SECTION OR RANGE OF SECTIONS):
2.			THE F	RULE IS ALREADY SCHEDULED FOR REVISIONS. IF INDICATE SCHEDULE:

1991/2 PERIODIC RULE REVIEW CHECKLIST DEQ AIR QUALITY DIVISION

INSTRUCTIONS

Check the appropriate boxes for the rule(s) assigned to you, fill in appropriate details if known, and return to the Yone McNally by January 17, 1992.

Item by item instructions:

A. Simple Clean-up Issues:

- Indicate if there are any typographical and/or grammatical errors. In some cases, the official printing of the rules has erroneous headings, missing words, and other problems. Some are hard to understand due to sentence structure. If you read a provision and have to ponder about what it means, check this box.
- Mark each type of citation contained in a rule and verify that the citations are correct by looking them up.

For citations to another rule or another section within the same rule, please note the following numbering system used in the OAR: Chapter-Division-Rule(Section)(subsection)(paragraph)(subparagraph). For example, OAR 340-25-465(5)(a)(A)(i) is chapter 430, division 25, rule 465, section (5), subsection (a), paragraph (A), subparagraph (i). In some cases, our rules mix up the terms rule and section (e.g. stating "as used in this section" when meaning "as used in this rule"). If you're not sure, ASK.

For citations to the Federal Register (FR) or Code of Federal Regulations (CFR), be aware that the citation is to the rule as it appeared in the FR on the date cited or in the CFR on the July 1 preceding the adoption of the OAR. If you want to incorporate any amendments in the federal rule since adoption, we must revise the OAR. If the citation is to the FR, in most cases it should be revised to a CFR citation with a publication date for clarity. The following format should be used:

- a. If the latest CFR is the correct citation -> "40 CFR 60.53 (published July 1, 1991)";
- b. If the CFR as of a previous publication date is correct and latest CFR is not correct -> "40 CFR 60.53 (published July 1, 1989)";

c. If the federal rule was amended since July 1, 1991 and the latest version is correct -> "56 FR 47404 (published September 19, 1991)"; à

d. If you mean to refer to a specific FR because the CFR includes other amendments you don't want or because the FR was a notice or other item which didn't amend the CFR -> "50 FR 15392 (published April 17, 1985".

For citations to the ORS, note that most of Air Quality's rules are now in Chapter 468A, and the sections in the statue have been reorganized. Look up the new citation.

- 3. Definition rules and applicability rules should specify the range of rules that they refer to. The following format should be used:
 - a. If a definition rule refers to an entire division -> "As used in this Division{, unless otherwise required by context}:";
 - b. If a definition rule refers to a range of rules ->
 "As used in OAR 340-25-305 through 340-25-325{;
 unless otherwise required by context]:";
 - c. If an applicability rule refers to an entire division -> "The rules in this Division apply to ...";
 - d. If an applicability rule refers to a range of rules -> "OAR 340-30-012 through 340-20-115 apply to ...".
- 4. If a rule requires a source to conduct source testing, the test method should be specified, along with any modifications to the test procedures found in the source test manual.

If a rule contains an emission standard, the applicable test method should be specified and the source test manual should be referenced.

Check with Mark Fisher for the appropriate test method.

5. If a rule is (or is intended to be) part of the State Implementation Plan (SIP), each time it is amended, OAR 340-20-047 must be amended also to incorporate the change into the SIP. A first cut method test is to look at the last date the rule was amended (in the history section at the end of the rule) and see if OAR 340-20-047 was amended on that same date. If it is not, flag it for further review. The following rules are part of the SIP:

<u>Division</u>	<u>Rules</u>		
1.4	A11		
20	001-047,	140-430	
21	A11		
22	005-300		
23	A11		
24	300-310,	315-335,	340-350
25	005-025,	105-430,	850-905
26	All		
27	A11		
29	A11	4	
30	All		
31	005-040,	055	
34	A11		

B. Issues That May Require More Evaluation:

Please flag rules that need revisions or should be evaluated to determine if they need revisions based on the issues raised in this section. These revisions or evaluations will likely require additional time and will not be on the Periodic Rule Review track, but we should identify them now for continuing investigation. Note any supplementary information on the checklist needed to clarify the revisions needed.

A rule or portion of a rule may no longer be needed or may need revisions because:

- o the regulated source type no longer exists,
- the rule is superseded by another rule (e.g. an interim requirement is superseded by a final requirement),
- o the federal requirement has changed,
- o a compliance schedule has expired (can the schedule be deleted?),
- o the rule is too complex,
- technology or economic factors have changed, or
- o other reasons.
- C. Other Information:
 - 1. List the ORS section number(s) that provides statutory authority for the rule (e.g. ORS 468.065). Note: following the 1991 Legislative session, the ORS was reorganized, and most of the Air Quality Division sections were moved to from ORS chapter 468 to chapter 468A. You can get a copy of the new ORS chapters from Andy Ginsburg or Yone McNally.
 - 2. Check if the rule is currently being revised or will soon be revised for other reasons. Note if any issues raised on the checklist will be addressed at that time.

Agenda Item N ATTACHMENT A

State of Oregon DEPARTMENT OF ENVIRONMENTAL QUALITY

INTERNAL RULE REVIEW

Each program at the Department of Environmental Quality (DEQ) conducted an internal rule review. The reports for Water Quality, Hazardous and Solid Waste, and Environmental Cleanup and Air Quality follow.

WATER QUALITY PROGRAMS

Water quality programs are covered in Oregon Administrative Rules (OAR) Chapter 340, Divisions 40-41,43-56, 71-73, and 81.

DIVISION 40

GROUNDWATER QUALITY PROTECTION

The rules within this Division establish the mandatory minimum groundwater quality protection for state agencies, cities, counties, industries, and citizens. The rules cover both point and non-point sources of pollution. 340-40-001 to 340-40-080 are predominately applied to point sources of pollution which required a discharge permit of some type. Rules above 340-40-100 are applicable to non-point pollution control efforts. Removal and remedial actions subject to Oregon Revised Statutes (ORS) 465.200 to 465.380, 466.705 to 466.835, and 466.895 are not subject to the requirements of these rules.

1) Economic impact of the rule

The Groundwater Quality Protection rules do cause an economic impact because they require facilities discharging waste to the groundwater to provide pollution control facilities for limiting pollutant discharges to groundwater.

2) Continued need for rule

Protection of groundwater quality is a high priority of the state; several of the minor state benchmarks focus on groundwater. Because of public demands the Department revised and adopted the point source rules in October 1989 (OAR 340-40-001 to 080). Additionally, the Oregon Legislature passed the Groundwater Protection Act in 1989. The rules are relatively new and implementation of these statutes and rules are still in progress. Agenda Item N Attachment A Page 2 January 29, 1993

3) Complexity or redundancy of the rule

The rules have been written using advisory committees to ensure better clarity. Additionally, guidance documents were produced when the rules were adopted to better explain the requirements and options within the rules. These guidance documents are now in the process of being updated to better address issues that have arisen since the original rules and guidance were developed.

4) Extent to which rules overlap, duplicate or conflict with other state rules

The rules were crafted to avoid overlapping, duplicating or conflicting with other rules and regulations. This was achieved by developing the rules through advisory committees, which had the appropriate representative on them and holding extensive public hearing on the rules. There are no parallel federal or local regulations which address groundwater protection issues.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

The technology for the protection of groundwater is continually being improved and advanced in many areas. The groundwater protection rules have been designed to take into consideration new advances in groundwater protection and are flexible enough to accommodate new technologies. Economic conditions have not changed significantly since the adoption of these rules; additionally, many studies have shown that protection of the groundwater resource is much cheaper and more cost effective that cleaning up the groundwater after it has been contaminated.

6) Statutory citation or legal basis for the rule

<u>OAR:</u>

ORS:

340-40-001 to 080	468.015, 468.020 and 468.700 to 468.720
340-40-100 to 135	468.020, 468.694 and 536.137

7) The rule's potential for enhancement of job producing enterprises

The rules require the development, design and construction of pollution control facilities. These activities are supported by consulting firms which develop plans and designs and construction firms which build the physical pollution control facilities. Agenda Item N Attachment A Page 3 January 29, 1993

8) Internal consistency of the rule

The rules were developed through advisory committees and public hearings to ensure that internal consistency was maintained. Public comments have not noted any inconsistency problems with the rules.

DIVISION 41

STATE-WIDE WATER QUALITY MANAGEMENT PLAN: BENEFICIAL USES, POLICIES, STANDARDS, AND TREATMENT CRITERIA FOR OREGON

1) Economic impact of the rule

The Water Quality Management Plan rules do cause an economic impact because they establish water quality protection policies, standards and treatment criteria which have to be achieved by water pollution sources. This requires the pollution sources to treat their wastewater before being discharged to waters of the state, thus requiring sources to expend resources for wastewater treatment.

2) Continued need for rule

It is the specifically stated policy of the state to protect water quality to provide for the identified beneficial uses of the water. Wastewater continues to be produced and discharged to the waters of the state; therefore, the rules are needed to prescribe the necessary levels of wastewater treatment and beneficial use protection.

3) Complexity or redundancy of the rule

The rules are written to describe the general policies and standards statewide as well as identify the specific standards for each individual basin within the state. This was done to provide an overall statewide direction to the program as well as provide sources within each individual basin with the specific information on the requirements for that particular basin. The rules are complex because the establishment of specific water quality standards for each and every basin is complex. The Department is required by federal law to review the standards every three years to determine if they continue to provide the necessary level of protection and are kept up to date with current scientific information and knowledge.

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4) Extent to which rules overlap, duplicate or conflict with other state rules

These rules do not overlap nor are they redundant with any other rules of the Department because this is the only rule division establishing water quality protection standards and policies for water of the state.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

The science behind the water quality standards is constantly under review. Research is always underway to examine many different parts and elements of the standards. Consequently, it is required by federal law that the Department review the standards every three years to determine if they still reflect the current scientific information. The latest review was completed in September 1991. The Department has just recently initiated the next triennial standards review which will be completed in the fall of 1994.

6) Statutory citation or legal basis for the rule

The Commission's authority to establish water quality policy and standards is contained in ORS 468B.

7) The rule's potential for enhancement of job producing enterprises

The rules provide the basis for protecting water quality in Oregon. As such, they identify for potential industrial and commercial wastewater sources the specific requirements for operation in the state. This provides certainty in the requirements. Rule implementation provides job opportunities in many sectors including the environmental consultant field and basic pollution control technologies. The construction of wastewater control and treatment facilities provides a significant level of opportunity in the construction industry.

8) Internal consistency of the rule

The Department is, as mentioned before, continually reviewing and revising the standards. Part of this review is to determine if they are internally consistent. Agenda Item N Attachment A Page 5 January 29, 1993

DIVISION 43

CHEMICAL MINING

1) Economic impact of the rule

There will be an economic impact associated with this rule. The rule requires certain controls of cyanide and other chemicals used in mining which may be costly to implement. The rule will add to the cost of extracting gold from low grade ores, which will reduce the profit margin for the activity. The rule may prevent mining of some very low grade ores.

This is a new rule adopted September 1, 1991. Since the rule was adopted, there have been no chemical mining operations proposed, although there are some applications being prepared. Consequently, the exact economic impact is unknown at this time.

2) Continued need for the rule

This is a new rule, and need for the rule has not diminished since its adoption.

3) Complexity or redundancy of the rule

This rule is necessarily complex because it regulates a complex industry. The rule is new and has not yet been tried on a project. Until a project has actually been through the process under the rule, we will not know whether there are unacceptable complexities which are not now apparent. The rule is not redundant. The Department worked closely with the Department of Geology and Mineral Industries (DOGAMI) in the development of the rule. The rule does refer the applicant to certain statutory requirements of DOGAMI.

4) Extent to which rule overlaps, duplicates or conflicts with other state rules

Rather than duplicating other state rules, the rule adds by reference other applicable water quality related rules which might apply to a chemical mining operation.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

This is a recently adopted rule and should be up to date with technology, economic conditions, or other factors.

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6) Statutory citation or legal basis for the rule

The Commission's authority to adopt rules for the protection of water quality is found in ORS 468B.

7) The rule's potential for enhancement of job producing enterprises

Until the rule was adopted, the mining industry did not know what would be expected of them in a mining project in Oregon. Since Oregon is known as an environmentally conscious state, there has been some reluctance to mine here because of the uncertainties of regulation. With the adoption of the rules, the requirements are known and new mining operations are likely to be initiated. The environmental requirements of the rules will provide opportunities for engineers and other consultants to develop treatment and control systems.

8) Internal consistency of the rules

In the development of this rule, great care was taken to maintain consistency with other Department rules.

DIVISION 44

CONSTRUCTION AND USE OF WASTE DISPOSAL WELLS OR OTHER UNDERGROUND INJECTION ACTIVITIES

1) Economic impact of the rule

This rule does prohibit certain underground injection activities in Oregon. This may have an economic impact. For example, in many states, hazardous wastes are injected into the ground for disposal through deep disposal wells. This rule prohibits deep well injection of hazardous wastes. In Oregon, hazardous waste must go to a licensed above-ground hazardous waste disposal site. We have no information as to whether underground injection in Oregon's geologic structure would be less expensive that the above-ground disposal currently permitted.

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2) Continued need for rule

The Underground Injection Control (UIC) program is one of the water pollution control programs delegated to the Department by EPA under the Safe Drinking Water Act. Without rules regulating these practices, the program could not be delegated to Oregon but would be controlled by EPA. In addition, for the protection of groundwater, this rule or an equivalent is essential.

3) Complexity or redundancy of the rule

This rule is not redundant to other rules affecting underground injection activities. The rule was last modified in 1983. Since then the state has adopted new groundwater policy and developed groundwater protection rules. This underground injection control rule now needs to be updated to address some additional issues and to better regulate certain aspects of underground injection associated with certain wastewaters such as storm water. It is the Department's intent to modify this rule in the near future.

4) Extent to which rules overlap, duplicate, or conflict with other state rules

DOGAMI does have rules related to the underground injection of oil and gas field production water. The Department works closely with them and does not duplicate their efforts. In addition, the Department of Water Resources does have rules pertaining to the injection of geothermal fluid. Again, the Department works closely with them and does not duplicate their requirements. The Department does not believe that the rule overlaps, duplicates, or conflicts with other state rules.

5) Degree to which technology, economic condition, or other factors have changed in the affected subject area

There have been no changes in technology, economic conditions, or other factors which have made this rule outdated, ineffective, or in need of modification. There are other reasons listed in this review which will impel the Department to expand and modify the rules.

6) Statutory citation or legal basis for the rule

The Commission's authority to establish water quality rules is contained in ORS 468B.

7) The rules potential for enhancement of job producing enterprises

This rule is strictly regulatory and has no potential for enhancement of job producing enterprises.

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8) Internal consistency of the rule

The rule is not inconsistent with other rules within the agency. However, the rule does need to be expanded to address other issues which are related to the groundwater policy and rules.

DIVISION 45

REGULATIONS PERTAINING TO NPDES AND WPCF PERMITS.

1) Economic impact of the rule

Division 45 has substantial fiscal and economic impacts on municipalities, industries, small businesses, government and the general public. These impacts are both positive and negative. Negative fiscal impacts are associated with costs for collection, transport, and treatment of wastes and disposal of the treated effluent and sludge. These costs include capital investment, operation and maintenance costs and payment of waste treatment permit fees to the Department. The total costs are not known but capital investment alone in municipal treatment facilities, from 1970-1988, was estimated by DEQ water quality staff to be in excess of \$1 billion. Capital investment in industrial treatment facilities is probably equivalent to investment in municipal facilities. Costs for collection of wastes and for ongoing operation and maintenance are not included in the above estimates. A reasonable estimate of total pollution control costs for facilities regulated by NPDES and WPCF permits in Oregon from 1970-1990 would be \$3 billion. In addition, permitted municipal and industrial sources pay permit processing and annual compliance determination fees. These fees amount to about \$1.5 million annually statewide.

The fiscal impacts of the costs are borne by all users of the collection and treatment systems and by industry customers either through direct billings or product prices. Municipal rate payers pay an average statewide of \$16-22 per month for debt retirement and ongoing operation and maintenance.

There are substantial positive fiscal and economic impacts associated with the NPDES and WPCF permit rules. Most pollution abatement in the state is performed by municipal and industry sources operating under these permits. Without the high degree of treatment provided by municipalities and industry, most rivers and smaller streams would be seriously polluted, and water quality standards would not be attainable. Water contact recreation would not be possible and both fresh and salt water commercial and sports fisheries would be drastically curtailed.

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2) Continued need for the rule

NPDES and WPCF permits are the primary tools for regulating point source discharges of waste in Oregon. There is no other mechanism for achieving waste treatment and for allowing specified effluent discharge loads to streams. The permitting process is also the primary tool for preventing discharges to ground water. Without Division 45 there would be no way to control point source waste discharges in Oregon.

Division 45 also includes waste discharge permit fees for all domestic and industrial sources under permit. The fees provide approximately 40 percent of the water quality division revenue for municipal and industrial permitting activities, for pretreatment and sludge management activities and for compliance determination activities. With fiscal restraints imposed by Measure 5 tax limitations and reduction of federal program grant funds, these fees will be an increasing share of the water quality program revenue. Elimination of the fees would result in a severe curtailment of essential activities.

3) Complexity or redundancy of the rule

The rules governing issuance of NPDES and WPCF permits are not complex. The rules clearly set forth requirements for obtaining permits and there is no redundant language. As noted below there are no conflicts between the Division 45 rules and other state or federal rules.

4) Extent to which the rule overlaps, duplicates or conflicts with other state rules, federal regulations, and local government regulations

There are federal regulations which require issuance of NPDES permits. The regulations specify minimum treatment requirements which must be met. The federal regulations do not conflict with Division 45 because NPDES permit activities have been delegated from EPA to the State of Oregon. In effect, the state rules are applied in lieu of minimum federal regulations.

The rules pertaining to permit issuance do not overlap with other state regulations. DEQ is the only state agency authorized to regulate wastewater treatment and discharge.

The rules do not duplicate or conflict with local government ordinances. Generally, local governments adopt environmental ordinances to implement state regulatory requirements. Some local government ordinances extend or augment state permitting requirements.

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5) Degree to which technology, economic conditions or other factors have changed in the affected subject area

New technology occurs continually in the wastewater treatment field. The Division 45 rules specify permitting requirements but are not technology specific. Permits are written for environmental and public health protection. Permittees are free to choose the appropriate technology necessary to meet the permit requirements.

Division 45 does not directly address economic conditions in issuance of NPDES or WPCF permits, i.e., permit requirements must be met regardless of current or changed economic conditions. The rules are sufficiently flexible, however, to allow water quality program permit writers to negotiate implementation schedules which recognize economic conditions. If, for example, a permittee cannot meet a specified permit requirement, a stipulation and final order can be prepared which will reduce treatment requirements and override permit conditions. The order would include a negotiated schedule for upgrading the treatment facility--the schedule can be lengthened to account for economic conditions.

Division 45 allows for waiver or reduction of waste treatment annual compliance determination fees based on "hardship." The rules need to be amended to specify hardship and to specifically address economic conditions related to hardship.

6) Statutory citation or legal basis for the rule

468.065	Issuance of permits; content; fees; use
468.070	Denial, modification, suspension or revocation
468B.005	Definitions for water pollution control laws.
468B.025	Prohibited Activities
468B.035	Implementation of Federal Water Pollution Act
468B.050	When permit required

7) The rules' potential for enhancement of job producing enterprises

Division 45 requires substantial capital investment and ongoing expenditures for day-to-day operations. To the extent that the funds could be used for productive enterprise, the rules diminish potential for job creation. However, since the rules require wastewater treatment permits, they lead directly to job creation in water pollution control activities. Examples include jobs for system maintenance and jobs for operation of sewage treatment plants and industrial waste treatment facilities. More importantly, the rules are essential for maintaining a clean environment. Most industries are extremely sensitive to the need for a clean environment as a necessary condition for attracting skilled employees. Without assurances of a clean environment the state would be unable to attract new industry

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8) Internal consistency of the rule

There are several internal inconsistencies in Division 45 which need to be addressed in the near future. These are enumerated as follows:

- While the permit processing fees for domestic waste treatment permits and industrial treatment permits are comparable, the annual compliance determination fees do not appear to be comparable. For example the annual compliance determination fee for a major pulp and paper mill is \$6,000; but the annual fee for a community such as Salem is over \$45,000. Both are considered major facilities. Either the rules should be amended or documentation should be developed to justify the fee differential.
- The section of the rules regulating pretreatment should be modified to exempt permittees less than 5 million gallons per day (mgd) from the provisions of the federal pretreatment program but also to allow DEQ regulation of categorical industries within the boundaries of these permittees. This will require some mechanism to regulate in lieu of a permit.
- The section of the rules describing when a permit is required needs clarification regarding publicly-owned collection systems which discharge to other publicly-owned systems for subsequent treatment and discharge. The rules should be modified to enable/require the Department to issue a WPCF permit, or to more clearly exempt these systems from permitting requirements.

DIVISION 47

REGULATIONS PERTAINING TO OIL SPILLS INTO PUBLIC WATERS

Rules within this Division were developed pursuant to ORS 468B.300 to 468B.990. Initial sections of these rules which prescribe procedures for reporting, controlling and cleaning up oil spills into public waters and for approvals for use of chemicals and for disposal of spilled oil were adopted by the Environmental Quality Commission (EQC) in 1972. Substantial additions related to oil spill contingency planning and fees were adopted in 1991 and 1992 based on new legislation passed by the 1991 legislature. Advisory Committees are currently evaluating the need for additional rules related to prevention of oil spills. Future work will examine natural resource damage assessment.

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1) Economic impact of the rule

These rules are directed at the maritime shipping industry and oil transport and storage industry. There is an economic impact on the industry in terms of fees to the Department to support the oil spill prevention program; cost for membership in an association or to a firm to provide oil spill response capability and for liability insurance; and costs for contingency plan development, equipment, training and drills.

2) Continued need for rule

Oil spill prevention and response preparedness is a high priority to the state, region and nation as indicated by recent legislation passed on the state (1989, 1991) and federal (1990) level and emphasis on regional cooperation through the State/BC Task Force (West Coast states and British Columbia). Cooperative efforts have been made to develop rules and programs with the State of Washington, U.S. Coast Guard (USCG), oil industry and environmental community. The Department has recently developed these rules through advisory committees and public comment and is currently in the process of developing additional rules related to oil spill prevention, natural resource damage assessment and use of dispersants. Planning and implementation of these rules is in progress.

3) Complexity or redundancy of the rule

These rules, while somewhat complex, were developed to be consistent with the State of Washington. This was a priority as much of the regulated community is also regulated by rules from the State of Washington. The USCG is currently developing contingency planning rules. As stated in the purpose statement of the rules, the contingency plan rules are intended to promote a consistent west coast approach to oil spill prevention and response and support coordination with state, federal and other contingency plans.

4) Extent to which rules overlap, duplicate or conflict with other state rules

These rules do not overlap, duplicate or conflict with other rules within the state and complement, as well as possible, rules in the State of Washington. Other state agencies, the State of Washington and the USCG were involved in the development of these rules. Industry and the environmental community was strongly involved and reviewed and commented on the rules to insure that they did not overlap with other rules. The rules and statues require that contingency plans be reviewed by other state and federal agencies as part of the review process.

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5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

Oil spill cleanup technology is continuing to be improved and refined. The rules and required plans have the flexibility to take this into account. Given the recent adoption of these rules, the economic conditions in the affected subject area have not greatly changed.

6) Statutory citation or legal basis for the rule

<u>OAR:</u>

<u>ORS:</u>

340-47-005 to 230 468B.300 to 468B.990

7) The rule's potential for enhancement of job producing enterprises

The rule has potential for enhancing job producing enterprises, especially in the areas of oil spill contingency planning, risk reduction, response training and preparedness.

8) Internal consistency of the rule

These rules do not appear to cause any internal inconsistencies.

DIVISION 48

CERTIFICATION OF COMPLIANCE WITH WATER QUALITY REQUIREMENTS AND STANDARDS

1) Economic impact of the rule

The rules do have an economic impact. They require that activities being conducted under federal permits meet the state's water pollution control program requirements. Therefore, individuals conducting activities requiring federal permits such as hydroelectric facilities are required to submit an application to the Department for a Section 401 certification. The economic impact occurs when applicants develop the information for the application and conduct the necessary work or activity required by the Department to protect the water quality. These activities must be in compliance with the state's water quality standards.

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2) Continued need for rule

The rule continues to be needed because these activities continue to be undertaken in the state. The rules help ensure that the regulated activities are performed in an environmentally sound manner.

3) Complexity or redundancy of the rule

The rules are not complex. They identify what information the applicant needs to include in the application. The Department has worked with other state and federal agencies to minimize redundancy in this rule. We at all possible opportunities attempt to use the information developed by the applicant to satisfy other agency requirements, if relevant. We also have identified and worked with the federal agencies for which this certification is needed to inform the applicant an early stage of project requirements.

4) Extent to which rules overlap, duplicate or conflict with other state rules

No other state agency has the responsibility to provide this certification nor does any other state agency have the authority to establish water quality standards and policies or to make certifications that activities conducted under federal permit comply with the state water pollution control program; therefore, it does not conflict with other programs or rules. On the contrary, it is usually specifically identified in other state and federal program rules and regulations as needed for the proposed activity.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

The rules themselves do not prescribe technologies the specific conditions of a certification or technologies of the proposed activity may change over time. One specific interest of the certification is to see that the proposed activity is being conducted with the current technology.

6) Statutory citation or legal basis for the rule

ORS 468B.035 ORS 468B.040 and .045 Agenda Item N Attachment A Page 15 January 29, 1993

7) The rule's potential for enhancement of job producing enterprises

The rule provides opportunities for environmental consultants, and reduces the time needed to receive certifications by identifying the information needed to proceed with activities impacted.

8) Internal consistency of the rule

The rules are internally consistent within the division and across other water quality rule divisions.

DIVISION 49

REGULATIONS PERTAINING TO CERTIFICATION OF WATER SYSTEM OPERATORS

Background

The EQC adopted Division 49 rules in 1988 as directed by the 1987 Oregon legislature, pursuant to ORS 448.408, et seq. The Health Division Administrator similarly was required to adopt rules for certifying water distribution and treatment system personnel. Oregon is among 48 states that now have mandatory certification requirements in effect.

The purpose of the statute and associated rules is to help protect public health and Oregon's environmental and water resources through proper operation and maintenance of wastewater systems by establishing requirements regarding certification of wastewater system personnel.

To become certified, individuals must meet minimum qualifications for education, experience and written examination set forth in the rules. To renew certification, the operator must demonstrate continuing professional growth (training) in the field.

Division 49 (rules), which regulates wastewater system operator certification, is a relatively new program for the Department. The certification program has voluntary and mandatory features, both equally key in meeting legislative intent.

The mandatory certification aspect (effective July 1, 1989) is two part in that: 1) wastewater system owners of public and private domestic wastewater systems (collection, treatment and disposal) must have their systems supervised by one or more operators who hold appropriate and valid certification under the rules; and 2) supervisors of wastewater systems must be properly certified.

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The voluntary feature is that all persons who meet established standards for certification may be certified, regardless of whether they are presently in a supervisory position. At the time of this writing, over 1,300 individuals are certified. More than one-half or about 700 are certified either on a voluntary basis or as a employment requirement (other than by rule). This growing number assures a reservoir from which to draw qualified, professional and committed operators for the future.

1) Economic impact of the rule

The fees for certification are not required to be paid by the system owners. Although, some communities do pay the fees for certifying operators, many certified operators pay their own fees and related training expenses.

The intent of the 1987 legislature was that the certification program be self-supported through fees established under the rules. Fees received are dedicated to the program and the fee schedule should be periodically adjusted to support the activities required to carry out the program.

Many system owners recognize the benefits derived by employing certified personnel. Most publicly-owned wastewater systems in Oregon today require certification as a prerequisite to hiring of not only supervisory personnel, but other operating staff as well. Therefore, many system owners do pay the cost of certification-related fees, including training (continuing education). Certification-based pay and promotion incentives have become commonplace in the industry. This indicates an increased recognition of the value of having certified staff.

The rules have increased operating costs to some system owners and operating personnel who would not have otherwise employed or contracted certified operators. These costs could be broken down into three categories: 1) fees to obtain certification (initial or upgrade to higher level); 2) fees for renewal; and 3) training expenses to enable personnel to acquire necessary training and continuing education credit to qualify for certification and renewal.

Presently, fees range from \$35 to \$55, depending on the type of application. Two-year renewal are \$40 and those operators holding grade level I or II collection and treatment certification may renew for a single fee. The cost of required continuing education (20 hours or two credits) ranges from as little as \$50 to \$450 per two-year period, depending on whether per diem and lost work effort are included.

Small municipalities and businesses who own wastewater collection and/or treatment systems may experience a greater proportional fiscal and economic impact due to a smaller economic base from which to cover mandated supervisory costs, which may include contracts for parttime system supervision. Agenda Item N Attachment A Page 17 January 29, 1993

Contract costs for operational system supervision, training and oversight range from \$100 to \$400 per month. It is estimated that there are about a dozen contractors providing supervisory services in Oregon.

Of the approximately 500 systems in Oregon that may be subject to Division 49 rules, 185 or 37 percent are privately owned systems largely businesses such as institutions, campgrounds, commercial, mobile home parks, moorages and RV parks. Almost all of these businesses (estimate 97 percent) have design flows below 75,000 gallons per day and qualify for a special exemption crafted to allow options in system supervision and thus reduce costs.

How Division 49 rules have addressed costs:

- The rules specifically exempt systems under 5,000 gallons per day that are permitted under the On-site Sewage Disposal rules (OAR Chapter 340, Division 71). Thus, individual homeowners and most small rural businesses on simple septic tank/drainfield systems are automatically excluded.
- Owners of systems less than 75,000 gallons per day design flow may contract with a properly certified operator for part-time supervision. Thus, small system owners do not have the expense of employing a certified operator on staff full time.
- Under the rules, a system owner may request a variance to the rules if undue hardship or burden exists.
- A two-year certificate renewal term. This two-year term reduces the actual yearly cost to certified persons, as well as administrative costs to the Department.
- Many small system owners/operators are required to have or employ those who have certification in <u>both</u> collection and treatment system operation. To reduce the costs associated with maintaining the two certificates, (i.e., application, examination, continuing education and certificate renewal fees), the rules allow:
 - 1) that continuing education requirements need only be met for one certificate;
 - a reduced fee for persons holding both collection and treatment system operation certificates at grade level I and/or II (presently two renewals for one or 50 percent savings); and

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- 3) a single application and examination fee for certification in both collection and treatment operation at grade level I. (Note: In June of 1991, the Department developed a combined examination. For those that qualify, only one examination now has to be scheduled and taken).
- Allows for provisional certificates to be issued to operators of small systems. This allows both the individual operator and the system owner to comply with statutory and rule requirements of having a certified supervisor while the individual is in the process of training.

The rules establish criteria for imposing penalties, fines, variances, and certificate revocation. The Department has specified requirements of system owners in permits through the permit issuance or modification process. Thus, the opportunity exists for owners of systems to request a variance to the rule and permit requirements through the permitting process, as well as outright.

All said, these costs do not appear to have created any economic hardship or result in a competitive disadvantage for business. Benefits to system owners and the public at large far outweigh the costs of certification and training. Proper operation and maintenance of Oregon's wastewater systems is essential to ensure maximum protection of public health and the state's environmental resources as well as to optimize the return of the significant public and private investment in these systems.

2) Continued need for the rule

The 1987 Oregon legislature, in enacting ORS 448.405 to 448.494, required the EQC to adopt rules to carry out the intent of certification requirements. The primary objective was to bring to all Oregon citizens the benefits of having skilled, knowledgeable and experienced personnel.

The statute generally prohibits any person to allow a system to operate unless the system is operated or under the supervision (direction) of properly certified operators. Further, the statute prohibits unsupervised persons who are not certified from performing the duties of an operator or system supervisor. Both are misdemeanors subject to criminal penalty. Without the rule, system owners and operators may not be able to comply with Oregon Law.

The rules help the Department to assure that properly trained operators are supervising each system, which in turn insures public health hazards and pollution are minimized. Continuation of the rules will help assure that the intent of the legislature is carried out and that operating personnel can apply for and obtain certification.

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Continuation of the rule will allow personnel to maintain and upgrade their current certification and new operators to become certified; thus, strengthening the reservoir of qualified persons to supervise Oregon's wastewater systems.

Prior to the effect of the rules, less than 50 percent of Oregon's wastewater systems were operated and/or supervised by properly certified operators (under voluntary program). At the time, a survey of systems not in compliance with their operating permits indicated that 75 percent of those systems did not employ certified operators. As of this writing, about 90 percent of all systems employ properly certified operators.

The draft reauthorization of the Clean Water Act includes national requirements and standards for operator certification. Continuation of the rule will help assure that Oregon's system owners and operators are prepared to respond to future requirements proposed under the act, and that Oregon is prepared to continue its program without EPA primacy.

3) Complexity or redundancy of the rule

The rules regulating operator certification are relatively complex in some areas. Guidance documents have been and will continue to be developed and updated to assist system owners and operators regarding certification examination, contract supervision, supervisor's availability, system classification, etc.

For the most part, the rules are rather straightforward. There was a certain amount of flexibility in language, including the Director's discretionary authority and variances to accommodate the many variations of systems and supervisory scenarios. The rules have not proven to be unnecessary burdensome to administer, and they will be revised as necessary and appropriate to keep them as simple and straightforward as possible.

4) Extent to which the rule overlaps, duplicates or conflicts with other state rules, federal regulations, and local government regulations

The rules focus on the technical operation of wastewater systems. The program does not appear to overlap, duplicate or conflict with other rules, federal regulations, and local government regulations.

It is quite possible that individuals certified under these rules may also be required to be certified or licensed under other local, state or federal regulations for related duties and responsibilities under their particular job description. Agenda Item N Attachment A Page 20 January 29, 1993

As mentioned above, national certification standards and requirements for both domestic and industrial operator certification are included in the draft reauthorization of the federal Clean Water Act. This program and its requirements parallel to a certain extent that which is proposed and may be acceptable for continuance of a state program under the Act.

5) Degree to which technology, economic conditions or other factors have changed in the affected subject area

Wastewater collection and treatment technology is changing. The rules are flexible enough to accommodate the changes that affect the wastewater system operation field.

Under the rules, DEQ evaluates wastewater systems and classifies each based on current size, and processes employed, and complexity of operation, etc. Certification examination content is evaluated periodically to assure "need to know" subject matter is keeping pace with technological advances. In addition, certificate renewal is based on the operator demonstrating professional growth in the field.

6) Statutory citation or legal basis for rule

Oregon Law (1987), ORS 448.405 to 448.430, and 448.992 directed and enabled the EQC to adopt these rules (pursuant to OAR 340-11-010, et. seq.) for classifying wastewater systems, certifying wastewater system personnel, establishing fees to recover expenses associated with implementing a certification program, and assuring compliance with statutory requirements.

7) The rules' potential for enhancement of job producing enterprises

For both large and small wastewater systems, the operational effort on-site varies. For some very small systems with minimum and/or seasonally reduced operational effort, it may not be feasible to employ a specialist on staff. The rules allow a contract with an operation specialist who is certified and may have the expertise required to assure preventive maintenance, optimize system performance and minimize pollution and environmental health risks. Thus, the opportunity does exist, and the rules flexible enough, to allow individuals, non-profits, governments and business to provide system supervisory personnel under contract.

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8) Internal consistency of the rules

Division 49 does not appear to cause inconsistencies internally. Wastewater system operating permits issued under OAR Chapter 340, Divisions 14, 45 and 71, include requirements for system owners to properly operate and maintain their systems. The language is silent on staff and/or supervisory qualifications (training and certification). These rules afford an option to define supervisory qualifications to include certification under Division 49.

DIVISION 50

LAND APPLICATION AND DISPOSAL OF SEWAGE TREATMENT PLANT SLUDGE AND SLUDGE DERIVED PRODUCTS INCLUDING SEPTAGE

1) Economic impact of the rule

At the direction of the 1983 legislature, the EQC adopted rules and guidelines (OAR, Chapter 340, Division 50) to promote the beneficial land application and marketing and distribution of domestic sewage treatment facility sludge (biosolids) and sludge derived products as an option to landfill disposal or incineration. The rules are necessary to prevent public nuisances (e.g., odor complaints), protect the public health and safeguard the environment by prescribing methods, procedures and restrictions required for the processing and beneficial recycling of solids derived from primary, secondary and advanced wastewater treatment.

Division 50 rules have both positive and negative fiscal impacts on municipalities, small businesses, government and the general public. Negative fiscal impacts are associated with costs for the treatment and land application of sludge. These costs include capital investment, operation and maintenance costs and payment of wastewater treatment permit fees to the Department. However, most permitted sources select sludge land application over incineration or landfilling because it is the most cost effective, environmentally sound, solids handling method.

Generally greater than 25 percent of a wastewater treatment works' infrastructure capital costs are directed towards the development of solids removal and processing facilities while 35 to 50 percent of a treatment facility's annual operating budget is aimed at solids separation, removal, treatment (conditioning, thickening and digestion) transport and land application activities. These costs are largely subsidized via monthly users fees.

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Farmers, siliviculturalists, etc., who receive sludge or sludge derived products and septage realize several economic benefits (e.g., \$50 to \$60 per acre savings in fertilizer; expanded water holding capacity and ease of tillage of soils that receive solids; and improved soil and water conservation via increased site erosion resistance) from these biosolids, particularly, since most sources both supply and land apply solids free of charge to cooperative land owners. Further, the use of sludge saves natural resources and energy needed to manufacture commercial nitrogen fertilizers from petrochemical products.

There are substantial positive ecological benefits associated with the sludge rules. Without the high degree of treatment and site management rules require, surface waters, groundwater, air and land resources could become significantly polluted by solids contaminants. The beneficial land application of sludge or sludge derived products and septage is generally considerably less expensive than wasting of these recyclable resources via landfill disposal or incineration. Further, EPA studies and risk assessment modeling indicate sludge landfilling and incineration pose a much greater threat to water, air and land resources and public health than the beneficial recycling of biosolids via land application. In addition, solids disposal at landfills unnecessarily depletes space necessary for other less recyclable waste products.

Rules prevent sludge from being applied at rates which would impair existing and future beneficial uses at solids receiving sites (they establish limits on the quantity of trace toxic inorganic and organic substances that can be land applied). In the absence of Division 50 rules, the potential for solids over-application could increase sharply, leading to unnecessary groundwater contamination by nutrients and pathogens and increased accumulation of environmentally significant amounts of trace toxic residues (substances like dioxins, furans, Polychlorinated Biphenyls (PCB), arsenic, mercury or lead) which could negatively impact property values and land, groundwater, surface water and air uses as well as require expensive remediation to mitigate problems, resulting in direct economic loss to land holders and the general public.

2) Continued need for the rule

The protection of public health, air, water, land, and ecological resources from unreasonable exposure to toxic inorganic and organic substances and pathogens commonly found in domestic wastewater, solids derived from wastewater treatment and septage is a high priority to the citizens of the State of Oregon. Oregon sludge rules and guidelines were adopted in 1984 to help protect the State's natural resources and public health, prevent nuisances, and promote the beneficial recycling (land application) of properly treated and managed sludges and septage.

Oregon sludge and septage rules implement on-going sludge and septage management programs which need to be continued.

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3) Complexity or redundancy of the rule

The rules governing sludge and septage management in Oregon are not too complex or difficult to understand. Aside from the guidelines portion of the rules, several guidance documents have been developed to assist regulated sludge producing sources, sludge handlers and septage pumpers, in the implementation of rules. Guidance documents will continue to be updated as appropriate to facilitate program implementation.

Department staff and DEQ's Domestic Sludge Technical Advisory Committee have continuously tracked and catalogued a number of housekeeping changes which would simplify and clarify sludge management rules. However, rule modifications (envisioned in mid-1993) have been delayed pending the promulgation of new federal technical regulations.

On November 25, 1992, EPA signed new federal sludge and septage regulations (40 CFR Part 503) which will require a number of modifications to Oregon sludge rules and guidelines. Those regulations are expected to become effective in mid-January, 1993. They establish minimum pollutant limits, sludge and septage stabilization standards, site management requirements and monitoring, record keeping and recording requirements for sludge and sludge derived products, like compost, and septage and recycling (i.e., solids land application at beneficial use rates).

EPA, in the preamble to the new federal sludge regulation, declared those standards the most complex they have ever written. Standards cross all resource boundaries (air-water-land) and involve the use of the most comprehensive and current risk assessment methods devised by the agency. However, the Department intends to keep Oregon sludge and septage rules as simple and straightforward as possible.

4) Extent to which the rule overlaps, duplicates or conflicts with other state and federal regulations and local government regulations

Aside from OAR Chapter 340, Division 50, several other state (DEQ) and federal (EPA) rules and regulations govern sludge and septage management to some extent. Most rule areas do not overlap, however, there are a few exceptions. The guideline portion of Division 50 rules overlap with some minimum solids stabilization provisions (processes to significantly and further reduce pathogens) in existing (40 CFR Part 257) and recently signed (40 CFR Part 503) federal sludge regulations. Overlapping areas will be removed when rules are revised to reflect the new 40 CFR Part 503 requirements.

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Infrastructure requirements for domestic solids storage and composting facilities are addressed under Division 61 (Solid Waste Management) requirements. And solid waste requirements define sludge and include a provision which allows partially stabilized sludge and septage to be land applied in remote sites which are located at least one-quarter mile from areas commonly frequented by the general public. The remote exemption status will conflict with new federal sludge regulations (40 CFR Part 503). New regulations do not include the land application of partially stabilized sludge or septage in remote settings amongst their site management options.

Division 61 regulations also contain permitting requirements for sources who treat domestic septage by mechanical means or in pits, ponds and lagoons which are designed exclusively to handle septage and/or other RCRA Subtitle D liquids. However, these Division 61 provisions due not conflict with Division 50 rules.

Domestic wastewater treatment sources that generate sludge and septage are regulated under OAR Chapter 340, Divisions 14 and 45 (source permitting requirements) as well as Division 49 (sewerage works facilities operator certification requirements). These rules are complementary to sludge rules. Sludge storage and composting facilities can be permitted under either a Solid Waste Management Permit (Division 61) or a domestic source wastewater permit (Divisions 14 or 45). Although overlap exists between these rules, they have not posed conflicts to existing sources.

Under OAR Chapter 340, Division 52, owners of sewerage works that produce solids and septage alkaline stabilization facilities are required to submit plans and specifications for Department review and approval prior to constructing or modifying those facilities. Further, businesses that remove and handle septage are regulated under OAR Chapter 340, Division 71 requirements. Those rules establish minimum requirements for septage pumping and hauling equipment and include provisions for the monitoring, record keeping and reporting of septage handling activities. Neither rule divisions conflict with Division 50 rules.

Federal regulations governing sludge management are currently embodied in 40 CFR Parts 50, 51, 52, 60, 61, 122, 123, 124, 257, 258, 501, as well as portions of Parts 260 and 261 and amendments to 40 CFR Parts 122, 123, 124 and 40 CFR 501 were promulgated in May 1989 [Parts 122, 123, 124 and 40 CFR 501 are administrative regulations related to domestic wastewater source permitting. They require states like Oregon, who operate sludge and septage regulatory programs, to commence applying minimum requirements for sludge monitoring, recording and reporting and record keeping in permits once new federal technical regulations (40 CFR Part 503) become effective (early 1993)]. OAR Chapter 340, Division 50 rules contain some provisions for monitoring, reporting and record keeping which will have to be modified once 40 CFR Part 503 becomes effective.

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No conflicts exist between 40 CFR Parts 50, 51, 52, 60, 61 (air pollution control regulations which apply to sources who incinerate domestic sludge), 258 (domestic sludge co-disposal and co-incineration standards), 260 and 261 (solid and hazardous waste classification, management and listing standards).

No similar state or local governmental regulations exist.

5) Degree to which technology, economic conditions or other factors have changed in the affected subject area

New technology occurs continuously in the field of domestic solids stabilization and use and sludge rules are sufficiently pliant to accommodate technological changes. Alterations in technology are recognized under current rules and will be reflected in future rule amendments. Division 50 rules specify sludge handling and land application requirements but do not dictate that sources use specific technologies to meet processing and stabilization standards. Permittees are free to choose the appropriate technology necessary to meet rule requirements.

Division 50 does not directly address economic conditions related to the processing or land application of sludge. Rules are sufficiently flexible, however, to allow water quality program sludge staff to negotiate implementation schedules which recognize economic conditions.

6) Statutory citation or legal basis for the rule

The 1983 Legislative Assembly enacted sludge statutes into law. ORS 468B.095 provides the basis for the Division 50 rules.

7) The rule's potential for enhancement of job producing enterprises

Division 50 requires substantial capital to fund daily operations. Since the rules require wastewater treatment works to process solids to make them amenable to land application, they lead directly to job creation at wastewater treatment facilities. Examples include jobs for system maintenance and operation of sewage treatment plants.

Division 50 is sufficiently flexible to allow entrepreneurs to investigate new technologies for solids stabilization and utilization. The sludge rule allows local domestic wastewater treatment sources to select which technology they prefer to meet stabilization requirements. Further, the rule enables wastewater treatment works to privatize all phases of solids handling from removal and processing at the domestic wastewater treatment works which generates the solids to solids land application. And Division 50 is suitably pliant to

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encourage the creation of enterprises to use sludge-derived products (bulk sludge and compost) as feedstocks for the manufacture of commercial fertilizers, planting and potting mixes and topsoils that can be marketed to wholesalers and retailers. In addition, rules allow properly stabilized sludge and sludge-derived products like compost to be used by commercial landscapers.

8) Internal consistency of the rule

While rules overlap somewhat with Division 61 Solid Waste rules, overlaps do not cause inconsistencies between programs and they afford additional options for handling domestic wastewater treatment plant solids and septages than are provided for under Division 50 rules alone.

DIVISION 51

CONFINED ANIMAL FEEDING OR HOLDING OPERATIONS

1) Economic impact of the rule

This rule does have an economic impact upon the confined animal feeding agricultural industry. The rule requires a permit from the agency and requires plan review. The rule also provided guidelines for the collection and disposal of manure and other wastewaters. Those guidelines require that sufficient wastewater storage be provided to hold not only the wastewater generated at the facility, but one half of the annual rainfall falling upon the confinement area. Collection, storage, and disposal of the wastewater does have an economic impact on the facility.

2) Continued need for rule

This rule is an essential part of the regulation of confined animal feeding operations. However, the rule was adopted in 1972 and last modified in 1979. There are changes which need to be made to update it to current practice.

3) Complexity or redundancy of rule

This rule is not complex. On the contrary, it is probably too simple and not definitive enough for some situations. The rule is not redundant to any other rules of the agency or other agencies. Agenda Item N Attachment A Page 27 January 29, 1993

4) Extent to which rule overlaps, duplicates, or conflicts with other state rules

This rule does overlap some rules of other agencies. However, it does not duplicate or conflict with their requirements. For example, the rule requires that plans for wastewater treatment and disposal systems be submitted to the Department for review and approval. If a waste storage lagoon was part of the waste storage facility, the Department would review the plans of the lagoon in relation to the volume of storage required and protection of groundwater. For lagoons over a certain size, the Department of Water Resources (WRD) also requires that plans be submitted to them for review and approval. Their review is for dam and dike structural safety. Since they are providing that review, the Department does not consider those issues in our review, unless the facility is smaller than what the WRD rules regulate. The Oregon Department of Agriculture (DOA) also has some rules pertaining to confined animal feeding operations. However, those rules only relate to certain annual fees and do not conflict with this rule.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

There have been no changes in technology, economic conditions, or other factors which affect this rule. The rule is broad enough to account for any changes in technology which become available.

6) Statutory citation or legal basis for the rule

The Commission's authority to establish rules is found in ORS 468B.

7) The rule's potential for enhancement of job producing enterprises

This rule is strictly regulatory and does not enhance job producing enterprises.

8) Internal consistency of the rule

This is a very simple rule. It is consistent with other Department rules and policies. The fact that it has not been modified since 1979 is a testimony to that.

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DIVISION 52

REVIEW OF PLANS AND SPECIFICATIONS

1) Economic impact of the rule

Division 52 requires that domestic and industry sources submit to the Water Quality Division (WQD) for review most engineering plans and specifications pertaining to disposal systems, treatment works and sewerage systems. There are both negative and positive fiscal and economic impacts associated with the rule. Negative impacts are minor and are associated with fees which are required when a set of engineering plans are submitted. The fees impact the source as a direct cost. The fees are generally low and are intended to cover the WQD's cost for performing the review. There are substantial positive fiscal and economic impacts. Through the plan review activities, design errors are determined, incorrect capacity calculations are uncovered, and the source has the benefit of receiving technical assistance and advice from engineers who review hundreds of similar plans. It is not possible to place a dollar value on the positive fiscal benefits but several millions of dollars have been saved through these engineering reviews.

2) Continued need for the rule

The rule could be eliminated (assuming statutory amendments). If this were the case the Department and permitted sources would rely entirely on consulting engineers. Elimination of the rule would result in the following losses: a) there would no longer be an independent review; b) the permitted source would no longer receive technical assistance from experienced engineers; c) the WQD would lose technical knowledge and understanding of municipal and industry treatment systems and would be forced to rely heavily on fines to achieve compliance with regulatory requirements; d) the WQD's clearinghouse function pertaining to new and innovative technologies would be eliminated; and e) federal granting agencies such as Farmers Home and EPA require independent reviews but do not perform the reviews--consequently federal grant money would be lost to the state.

3) Complexity or redundancy of the rule

The rule is clearly written, is not particularly complex and there are no redundancies. There is no need to clarify or amend the rule.

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4) Extent to which the rule overlaps, duplicates or conflicts with other state rules, federal regulations, and local government regulations.

As noted above federal granting agencies do not perform engineering review functions but instead rely on DEQ to perform this activity. Other state agencies with an interest in municipal and industry waste treatment such as the Economic Development Department (EDD), Department of Transportation (DOT), Department of Land Conservation and Development (DLCD) and others rely on DEQ to perform the necessary engineering reviews. The DEQ activities and plan development activities by permitted sources (or their consultant) do not overlap since a clear distinction is made between plan development and independent plan review.

5) Degree to which technology, economic conditions or other factors have changed in the affected subject area

New technology occurs continually in the wastewater treatment field. The plan review engineers perform a key role in gathering new information (in part through plan review) and in passing this information on to the permitted sources. The plan review rules are sufficiently flexible to accommodate changes in technology and economic conditions. In recent years, the WQD has worked with many small communities to find ways to cut materials, construction and operating costs for wastewater collection and treatment systems.

6) Statutory citation or legal basis for the rule

468.065(4) Submission of plans, specification....468B.055 Plan approval required; exemptions

7) The rules' potential for enhancement of job producing enterprises

Division 52 is neutral with respect to enhancement of job producing enterprises. The plan review engineers are supportive of new technology and innovations in wastewater collection and treatment. To this extent, new enterprise is encouraged.

8) Internal consistency of the rule

The rule sets forth procedures and requirements for review of plans and specifications for the construction or installation of disposal systems, treatment works and sewerage systems. These rules were reviewed and updated in 1990 and no changes are suggested at this time.

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DIVISION 52

REVIEW OF PLANS AND SPECIFICATIONS

1) Economic impact of the rule

Division 52 requires that domestic and industry sources submit to the WQD for review most engineering plans and specifications pertaining to disposal systems, treatment works and sewerage systems. There are both negative and positive fiscal and economic impacts associated with the rule. Negative impacts are minor and are associated with fees which are required when a set of engineering plans are submitted. The fees impact the source as a direct cost. The fees are generally low and are intended to cover the WQD's cost for performing the review. There are substantial positive fiscal and economic impacts. Through the plan review activities, design errors are determined, incorrect capacity calculations are uncovered, and the source has the benefit of receiving technical assistance and advice from engineers who review hundreds of similar plans. It is not possible to place a dollar value on the positive fiscal benefits but several millions of dollars have been saved through these engineering reviews.

2) Continued need for the rule

The rule could be eliminated (assuming statutory amendments). If this were the case the Department and permitted sources would rely entirely on consulting engineers. Elimination of the rule would result in the following losses: a) there would no longer be an independent review; b) the permitted source would no longer receive technical assistance from experienced engineers; c) the WQD would lose technical knowledge and understanding of municipal and industry treatment systems and would be forced to rely heavily on fines to achieve compliance with regulatory requirements; d) the WQD's clearinghouse function pertaining to new and innovative technologies would be eliminated; and e) federal granting agencies such as Farmers Home and EPA require independent reviews but do not perform the reviews--consequently federal grant money would be lost to the state.

3) Complexity or redundancy of the rule

The rule is clearly written, is not particularly complex and there are no redundancies. There is no need to clarify or amend the rule.

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4) Extent to which the rule overlaps, duplicates or conflicts with other state rules, federal regulations, and local government regulations.

As noted above federal granting agencies do not perform engineering review functions but instead rely on DEQ to perform this activity. Other state agencies with an interest in municipal and industry waste treatment such as the Economic Development Department, Department of Transportation, DLCD and others rely on DEQ to perform the necessary engineering reviews. The DEQ activities and plan development activities by permitted sources (or their consultant) do not overlap since a clear distinction is made between plan development and independent plan review.

5) Degree to which technology, economic conditions or other factors have changed in the affected subject area

New technology occurs continually in the wastewater treatment field. The plan review engineers perform a key role in gathering new information (in part through plan review) and in passing this information on to the permitted sources. The plan review rules are sufficiently flexible to accommodate changes in technology and economic conditions. In recent years, the WQD has worked with many small communities to find ways to cut materials, construction and operating costs for wastewater collection and treatment systems.

6) Statutory citation or legal basis for the rule

468.065(4) Submission of plans, specification....468B.055 Plan approval required; exemptions

7) The rules' potential for enhancement of job producing enterprises

Division 52 is neutral with respect to enhancement of job producing enterprises. The plan review engineers are supportive of new technology and innovations in wastewater collection and treatment. To this extent, new enterprise is encouraged.

8) Internal consistency of the rule

The rule sets forth procedures and requirements for review of plans and specifications for the construction or installation of disposal systems, treatment works and sewerage systems. These rules were reviewed and updated in 1990 and no changes are suggested at this time.

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DIVISION 53

DEVELOPMENT AND MANAGEMENT OF THE STATEWIDE SEWERAGE WORKS CONSTRUCTION GRANTS PROGRAM

The rules within this Division establish the procedures and priority criteria to be used by the Department for development and management of a statewide priority list of sewerage works construction projects potentially eligible for financial assistance from the U.S. Environmental Protection Agency's Municipal Wastewater Treatment Works Construction Grants program, Section 201, Public Law 95-217.

1) Economic impact of the rule

The Construction Grants program has had a beneficial economic impact. Municipal projects selected to receive grants under these rules cost more than they otherwise would (due to all of the requirements that have to be met), but communities receiving such assistance received grants of from 55 to 75 percent of eligible costs. Through this program, Oregon communities have received 555 grants totaling \$657,311,879 for projects costing \$882,028,158 since 1972.

2) Continued need for rule

Congress decided to end the Construction Grants program in 1987. Under federal law, the last new grants were made September 30, 1991. However, some 45 communities still hold active grants for one or more projects at some stage of development. According to U.S. EPA all of these grants are to be administratively completed by September 30, 1995, and closed out by September 30, 1997.

Because this Division deals with a process for prioritizing applications for new grant assistance, and no new grants may legally be made, it would appear that Division 53 is no longer needed. Ultimately, that will be the case, but it seems prudent to retain the Division until all existing grants are closed out or at least administratively complete.

3) Complexity or redundancy of the rule

Many guidance documents were produced by the Environmental Protection Agency. These, as well as training and hands on technical assistance has been provided to communities requesting Construction Grant assistance.

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4) Extent to which rules overlap, duplicate or conflict with other state rules

The rules were crafted to avoid overlapping, duplicating or conflicting with other rules and regulations. They do parallel federal regulations for the Construction Grants program and have been reviewed and approved by the EPA.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

Technology for the environmentally sound collection, treatment and disposal of municipal wastewater has not changed a great deal during the life of the program. The U.S. EPA did invest funds in investigating experimental systems, and encouraged communities to solve their problems with cost-effective innovative or alternative technologies by guarantying that even if such a system doesn't work, it will be replaced with a conventional one at no additional local expense.

6) Statutory citation or legal basis for the rule

<u>OAR:</u>	<u>ORS:</u>
340-53-005 to 035	468B

7) The rule's potential for enhancement of job producing enterprises

Sewage Works construction projects financed through this program create jobs for consulting firms such as engineers, etc. as well as temporary employment for a variety of craft people during construction. As such, direct job enhancing effects are temporary. However, there are also substantial, indirect job producing effects from increased investment in a community's capacity to accommodate growth in an environmentally sound fashion. Lastly, preserving clean water is an important quality of life issue that is at the heart of what makes Oregon a desirable place to be.

8) Internal consistency of the rule

The rules have been in effect since 1980, and were last modified over fours ago. No internal inconsistencies have been identified with the rules.

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DIVISION 54

STATE REVOLVING FUND PROGRAM

The rules within this Division establish the procedures and selection criteria to be used by the Department in deciding which municipal applicants will receive below market interest rate loan financing for projects that solve water quality problems by planning, designing or constructing Municipal Wastewater Treatment Works. In statute the State Revolving Fund (SRF) is called the Water Pollution Control Revolving Fund.

1)Economic impact of the rule

The SRF program has a beneficial economic impact because it reduces Municipal borrowing costs for required facilities which discharge waste to the surface water, groundwater or reuse it.

2) Continued need for rule

With the demise of the EPA's Municipal Wastewater Treatment Works Construction Grants program, the SRF has been established as a permanent, significant source of financial assistance for local governments with municipal wastewater treatment needs. To date, a total of \$77.5 million has been committed to the SRF (\$64.3 million in federal grants together with \$13.2 million in state match). Another \$25 million will be available in Fiscal Year (FY) 1993-94 and a similar (or lesser amount) is expected in FY 1994-95, after which federal grants will cease (according to current law). As a condition of receiving the federal grants the state has agreed to manage this fund in perpetuity to help local governments solve priority water quality problems.

Because of the demands of the local governments using the fund, the Department has revised these rules twice since they were first adopted in 1989, most recently December 11, 1992. Implementation of these statutes and rules is still in the process of development.

3) Complexity or redundancy of the rule

The rules have been written using advisory committees in an attempt to improve clarity. Most of the December 11, 1992, changes to the rule were editorial in nature to simplify the rule, add flexibility and improve readability. Additionally, guidance documents were produced when the rules were adopted to better explain the requirements and options within the rules. These guidance documents are now in the process of being updated to better address issues that have arisen since the original rules and guidance were developed. Agenda Item N Attachment A Page 35 January 29, 1993

Finally, Department staff provides a lot of direct technical assistance to communities using this resource.

4) Extent to which rules overlap, duplicate or conflict with other state rules

The rules were crafted to avoid overlapping, duplicating or conflicting with other rules and regulations. This was achieved by developing the rules through advisory committees, which had the appropriate representative on them and holding extensive public hearing on the rules. There are parallel federal regulations for SRF programs to which these state rules conform. Finally, the EPA has reviewed and approved these rules.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

Technology for the environmentally sound collection, treatment and disposal of municipal wastewater has not changed a great deal during the life of the program. The EPA did invest funds in investigating experimental systems, and encourages communities to solve their problems with cost-effective innovative or alternative technologies.

The primary reason for the existence of these program rules is assist local governments to solve water quality problems caused by their wastewater discharges. Clearly, macroeconomic factors such as construction cost inflation and the general level of interest rates have a very large effect on affordability.

6) Statutory citation or legal basis for the rule

<u>OAR:</u>

<u>ORS:</u>

340-54-005 to 075 468.423 to 468.440

7) The rule's potential for enhancement of job producing enterprises

Sewage works construction projects financed through this program create jobs for consulting firms such as engineers, etc., as well as temporary employment for a variety of craft people during construction. As such, direct job enhancing effects are temporary. However, there are also substantial, indirect job producing effects from increased investment in a community's capacity to accommodate growth in an environmentally sound fashion. Lastly, preserving clean water is an important quality of life issue that is at the heart of what makes Oregon a desirable place to be.

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8) Internal consistency of the rule

The rules were developed through advisory committees and public hearings to ensure that internal consistency was maintained. Public comments have not noted any problems with consistency in these rules.

DIVISION 55

REGULATIONS PERTAINING TO THE USE OF RECLAIMED (TREATED EFFLUENT) FROM SEWAGE TREATMENT PLANTS

1) Economic impact of the rule

In August 1990, the EQC adopted rules (Division 55) governing the reuse of wastewater from sewage treatment plants. Rules were established to encourage the use of recycled wastewater as a beneficial resource, as an option to its disposal via discharge to surface water. The rules are necessary to protect the environment and public health in Oregon by prescribing the methods, procedures and restrictions required for beneficial reclaimed water uses. They recognize that reclaimed wastewater recycling enhances water quality by reducing discharges of treated effluents to surface waters and conserves water resources by reducing the demand for out of stream and groundwater withdrawals.

Recycled wastewater rules promote the advancement of programs which will enhance agricultural production and preserve landscaped expanses in areas where irrigation water supplies are limited. Recycled wastewater contains nutrients vital to vegetative growth. Wastewater reuse often offers permitted sources a cost effective wastewater management option, enables waste load allocations to be met for NPDES discharge permit requirements, and recycled wastewater programs can be developed to provide additional water supplies by replacing existing surface and groundwater supplies.

Division 55 rules have both positive and negative fiscal impacts on municipalities, small businesses, government and the general public. Negative fiscal impacts are associated with additional treatment, storage, conveyance, and effluent land application costs. These costs include capital investment, operation and maintenance costs and payment of wastewater treatment permit fees to the Department. However, most sources select land application as their means for effluent handling because it is the most cost effective wastewater handling alternative.

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Farmers, nurserymen, sod farms, golf courses, owners of urban landscaped areas, etc., who receive reclaimed effluent realize a number of direct and indirect economic benefits (e.g., savings in fertilizer and water costs). Most municipalities provide farmers reclaimed water free and they often subsidize all or a substantial portion of effluent transmission and application equipment. In some instances, where water supplies are scarce, otherwise non-productive farm lands have been converted to highly productive agricultural sites through the development of reclaimed water land application systems, directly benefitting both the farmer and the environment.

Cities and school districts that use reclaimed water in green belt areas and parks realize direct savings in water costs and access to reuse water enables municipalities to direct potable water resources to other beneficial uses. Droughts recently experienced in Oregon have intensified the need for water conservation and heightened the demand for reclaimed water. As increased population places expanded demand on potable water supplies, public and private landscaped areas (in locations where insufficient potable water supplies result in bans on landscape irrigation with drinking water supplies) will benefit from the availability of reclaimed water.

There are substantial positive ecological impacts associated with wastewater reuse rules. Rules prevent reclaimed water from being applied at rates which could result in groundwater contamination. They help prevent soil erosion in arid areas by promoting luxuriant vegetative growth. Access to reclaimed water decreases demands on natural ground and surface water supplies that would otherwise be used for irrigation.

2) Continued need for the rule

Division 55 rules implement on-going domestic wastewater reclamation and reuse programs needed to encourage effluent recycling, provide an option to surface water discharge in TMDL limited streams, enhance surface and groundwater quality, and conserve water resources which justify their continuance. They also provide necessary direction to sewage treatment plant owners who wish to reuse treated effluents in a manner that protects both the environment and public health.

3) Complexity or redundancy of the rule

These rules are not duplicated anywhere else in state or federal administrative codes. They provide the sole direction and regulatory means for managing treated effluent from sewage treatment plants.

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The rules were drafted with the intent of maintaining flexibility. As such, they are somewhat general. The Department does not believe that they are too complex or too difficult to understand.

To help provide permitted sources and the public additional direction on effluent reuse, the Department has drafted guidance documents which: a) Explain the scope, intent and application of the reuse rules; b) outline elements which need to be considered in effluent reclamation and reuse plans (rules require reuse plan submittal and approval by the Department); and c) indicate appropriate treatment levels and site management restrictions for a variety of reclaimed effluent uses. In addition, the Department regularly distributes guidance developed by the California-Nevada Section of the American Water Works Association which provides direction for planning, construction and operation of non-potable waster systems in order to help expedite the implementation of effluent reuse projects. Further, additional guidance is planned which will assist sources on how to determine appropriate effluent reuse loading rates.

Guidance documents will continue to be developed and updated as appropriate to facilitate program implementation.

Department staff continuously track rule application. Rule modifications will be made if experience in program implementation indicates substantive modifications necessary or changes are needed to simplify and clarify effluent reuse regulations.

4) Extent to which the rule overlaps, duplicates or conflicts with other state and federal regulations and local government regulations

Rule areas do not overlap with federal, state or local governmental regulations.

5) Degree to which technology, economic conditions or other factors have changed in the affected subject area

These rules are relatively new. The Department does not believe that conditions have changed to warrant rule revisions. The rules have been prepared with sufficient flexibility to allow the use of new technology as it develops.

6) Statutory citation or legal basis for the rule

ORS 468.020 authorizes the EQC to adopt rules and standards it considers necessary and proper in performing the functions vested by law in the Commission. ORS 468B.050 requires a permit from the Department before any person may construct, install, modify or operate any disposal system or part thereof or any extensions or addition thereto.

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7) The rule's potential for enhancement of job producing enterprises

The rules provide a regulatory means for owners of sewage treatment plants to reuse treated effluent for a variety of beneficial purposes. On this basis, treated effluent can diverted to uses, particularly agricultural uses, for the production of job-producing enterprises that may not otherwise be possible because of the lack of available water.

8) Internal consistency of the rule

Division 55 rules are not inconsistent with other rules and they afford non-discharge options for handling domestic wastewater treatment plant effluents which are not covered under other rules.

DIVISION 56

INSTREAM WATER RIGHTS

1) Economic impact of the rule

These rules could have a positive economic impact in the area of streams in which they are implemented for the water pollution sources discharging to the specific streams in which rights are granted. They could also have an impact on future consumptive water rights if water levels fall to the point where junior water rights would be cut off to provide for senior instream rights.

2) Continued need for rule

The rules were just passed by the EQC as required by recent legislation. The Department has yet to use the rules to apply for instream rights.

3) Complexity or redundancy of the rule

The rules identify the process and method the Department will use to apply for instream water rights for the Water Resources Department. They are not complex or redundant with any other rules of the Department.

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4) Extent to which rules overlap, duplicate or conflict with other state rules

The rule were required as a part of recent legislation and they do not overlap with, duplicate or are in conflict with other state rules. These rules were developed to address a specific situation as described by statute.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

These rules are too new to be so affected.

6) Statutory citation or legal basis for the rule

ORS 537.332 to ORS 537.360

7) The rule's potential for enhancement of job producing enterprises

The rules have limited opportunity to enhance job producing enterprises other than they may assist a city or industry in meeting instream water quality standards and thus allow them to operate.

8) Internal consistency of the rule

The rules are internally consistent, and do provide the Department with another tool to assist in meeting instream water quality standards.

DIVISIONS 71, 72, AND 73

REGULATIONS PERTAINING TO ON-SITE SEWAGE DISPOSAL SYSTEMS AND THE LICENSING OF SEWAGE DISPOSAL SERVICE BUSINESSES

The rules within these divisions prescribe minimum standards for the construction, alteration, repair, operation and maintenance of subsurface, alternative and nonwater-carried sewage disposal systems. Also included are the basic licensing requirements for persons that provide sewage disposal services and a schedule of fees for permits, licenses, and other on-site actions established for the Department and its agents. The purpose of these rules is to restore and maintain the quality of public waters, and to protect the public health and general welfare of the people of the state.

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1) Economic impact of the rule

There are both positive and negative fiscal and economic impacts associated with the rules within these divisions. The rules require that all persons proposing to construct, alter or repair an on-site system, or proposing to provide sewage disposal services, submit applications and fees. Fees are the major source of revenue for funding the on-site program. The fees impact the applicants as a direct cost. Other direct economic impacts to applicants are the costs associated with the construction, operation and maintenance of the sewage treatment and disposal systems that will serve each applicant's home or business. On the positive side, the rules enhance the quality of life experienced by residents and visitors to the State, by restoring and maintaining a clean and healthful environment. The rules promote and protect the public's interest in health, safety and water quality.

2) Continued need for the rule

Protection of public health, safety and water quality is a high priority of the state. Domestic sewage continues to be generated and discharged from homes and other structures and must be treated and disposed of safely. When public sewerage collection and treatment facilities are not available, the public must rely on the use of on-site sewage treatment and disposal systems. More than one-third of the residents of the state use on-site sewage disposal methods. These are the primary rules that prescribe the minimum standards for on-site sewage disposal methods necessary to protect the public interest.

3) Complexity or redundancy of the rule

The rules have been promulgated using advisory committees to ensure clarity and ease of implementation. Considerable effort has been taken to draft the rules so that they are no more complex than reasonably necessary to accomplish their purpose. The rules have not been found to be redundant.

4) Extent to which the rule overlaps, duplicates or conflicts with other state rules, federal regulations and local government regulations

Because the EQC has been authorized the sole authority to adopt administrative rules regulating on-site sewage disposal methods, there are no overlaps, duplicates or conflicts with the rules of other state agencies. The federal government has not yet promulgated regulations pertaining to on-site sewage disposal systems or methods. The rules in Division 72 establish maximum fees several counties may charge for on-site actions they perform and may be duplicated in the local county ordinance that establishes the activity fees for the county.

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5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

On-site technologies are evolving continually throughout the nation. The rules specify permitting criteria and are technology specific. For the rules to remain "state of the art," it is necessary to have staff and resources available to review and analyze the technical advancements being reported by other states and, when warranted, incorporate the proven new concepts into the rules.

6) Statutory citation or legal basis for the rule

ORS 454.605 through ORS 454.780 ORS 468.020 ORS 468.065 ORS 468.070 ORS 468.090 ORS 468.095 ORS 468.100 ORS 468.115 ORS 468.135 ORS 468.140 ORS 468.140 ORS 468B.005 through ORS 468B.025 ORS 468B.075 through ORS 468B.080

7) Potential for job-producing enterprises

Other than the homeowner and the homeowner's family having the authority to construct their own on-site sewage disposal system, only persons or businesses holding a valid sewage disposal service license are lawfully authorized to participate in the construction of on-site systems, or the pumping or cleaning of these systems. Each permit issued (there are approximately 4,000 to 6,000 or more issued each year) represents a potential job for a license holder. In addition, basic materials used within on-site systems (septic tanks, pipe, gravel, pumps, etc.) represent additional jobs associated with the on-site program activities.

8) Internal consistency of the rules

No inconsistencies within the rules were noted in the review.

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DIVISION 81

STATE FINANCIAL ASSISTANCE TO PUBLIC AGENCIES FOR WATER POLLUTION CONTROL FACILITIES

The rules within this Division establish and describe the procedures and requirements for obtaining state financial assistance for construction of water pollution control facilities pursuant to Article XI-H of the Oregon Constitution and ORS 468.195 et. seq.

1) Economic impact of the rule

The State Financial Assistance rules have a beneficial economic effect on municipal corporations by reducing their borrowing costs for the acquisition of water pollution control facilities. Since general obligation bonds pledge the "full faith and credit" of the state to the timely payment of principal and interest to bond owners, a detrimental economic effect would be felt by the state if public agencies borrowing through this program do not make their scheduled payments to the State or do something that compromises the tax exempt nature of the financing. Should it prove necessary, a state wide ad valorem property tax could be levied to repay bonds.

2) Continued need for rule

The purpose of these rules is to establish procedures and requirements for obtaining state financial assistance for construction of water pollution control facilities pursuant to Article XI-H of the Oregon Constitution. Through the sale of general obligation bonds, the state is able to borrow at very low interest rates, and local governments are interested in obtaining some of this savings by obtaining financing they need through this source (rather than by selling their own debt in the private credit markets). The need for such financing assistance continues.

3) Complexity or redundancy of the rule

The rules are short and an attempt has been made to write them as simply as possible. While other financing programs exist to help municipal corporations acquire water pollution control facilities, this program is not redundant because the level of need is many times the sum of all assistance programs. However, the field of municipal finance is complicated, and the rules reflect this complexity. Agenda Item N Attachment A Page 44 January 29, 1993

However, public agencies seeking to borrow funds through this Division hire financial professionals to assist them. No guidance documents have been produced to explain the rules, requirements and options that exist within the rules due to lack of demand. Should the need for such guidance be identified, documents will be prepared to address issues that have arisen since the original rules were developed.

4) Extent to which rules overlap, duplicate or conflict with other state rules

The rules were crafted to avoid overlapping, duplicating or conflicting with other rules and regulations. They complement the rules of other financing programs within the DEQ (principally the State Revolving Fund program described in Division 54) and programs of the EDD. The parallel federal program is the EPA's Sewage Treatment Works Construction Grants program which is described in Division 53, and is being phased out (with no new appropriations made after September 30, 1991).

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

Interest rates move up and down as part of normal economic cycles. Currently, interest rates are at close to an all time low for both taxable and tax exempt borrowings. Current economic conditions are much different than they were when these rules were adopted. Never-the-less, demand for this lowest cost unsubsidized financing continues even though the benefit (over what other public agencies could accomplish on their own) is reduced from what it would be in other interest rate environments.

6) Statutory citation or legal basis for the rule

<u>OAR:</u>

<u>ORS:</u>

340-81-005 to 110 468.195 to 468.420

7) The rule's potential for enhancement of job producing enterprises

The rules require the development, design and construction of pollution control facilities. These activities are supported by consulting firms which develop plans and designs and construction firms which build the physical pollution control facilities. Agenda Item N Attachment A Page 45 January 29, 1993

8) Internal consistency of the rule

The rules were developed through advisory committees and public hearings to ensure that internal consistency was maintained. Public comments have not noted any inconsistency problems with the rules.

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HAZARDOUS AND SOLID WASTE PROGRAMS

Hazardous Waste Program

OARs issued and administered by the Hazardous Waste and Toxics Use Reduction program are:

- Hazardous Waste Management System: General 340-100-001 through 022.
- Identification and Listing of Hazardous Waste: 340-101-001 through 034
- Standards Applicable to Hazardous waste Generators: 340-102-010 through 070
- Standards Applicable to Transporters of Hazardous Waste by Air or Water: 340-103-010 through 031.
- Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities: 340-104-001 through 343.
- Management Facility Permits: 340-105-001 through 120.
- Permitting Procedures: 340-106-001 through 012.
- Management of Pesticide Wastes: 340-109-001 through 020.
- PCB's: 340-110 (reviewed in section B)
- Used Oil/Road Oiling Rules: 340-111 (reviewed in section C)
- Hazardous Waste Management: Additional Siting and permitting Requirements for Hazardous Waste and PCB Treatment and Disposal Facilities: 340-120-001 through 025.
- Toxics Use Reduction and Hazardous Waste Reduction: 340-135-000 through 110 and Appendix 1.

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<u>RCRA Authorization, OAR Chapter 340, Divisions: 100, 101, 102, 103, 104, 105, 106, 109, 120, 135</u>

<u>Note:</u> The Hazardous Waste rules are reviewed annually as part of the process of adopting new federal rules by reference in order to maintain federal authorization. The Hazardous Waste Reduction and Toxics Use Reduction and Hazardous Waste Reduction regulations are updated annually according to statutory requirements. The hazardous waste rules and the hazardous waste reduction and toxic use reduction rules were reviewed and updated at the October 1992 EQC meeting.

1) Economic impact of the rules

There is an economic impact of the hazardous waste rules on state agencies, local governments, the public, including small and large businesses. There is a cost to any public or private entity to properly manage hazardous wastes which are created. The major impact is on those entities which create more than 220 pounds of hazardous waste in any one calendar month. The costs include: Conducting hazardous waste determination, record keeping, complying with spill preparedness, prevention and contingency requirements, managing and disposing of hazardous waste as required. DEQ also assesses a fee based on the amount of hazardous waste generated. The fees are dedicated to implementing the hazardous waste program.

In addition, large quantity generators, which create more than 2,200 pounds of hazardous waste in a calendar month, are required to develop a toxic use reduction plan; however, any operating costs incurred by businesses when complying with the state-only Hazardous Waste Reduction and Toxic Use Reduction planning rules are likely offset by savings resulting from the reduction in toxics use and hazardous waste generation and attendant costs.

2) Continued need for the rules

Oregon is currently authorized by the federal government to manage the hazardous waste program mandated by Congress under the Resource Conservation and Recovery Act (RCRA). In order to maintain authorization, the state must adopt new federal rules and repeal any existing state rules which are less stringent, within specified time frames. Loss of authorization would likely result in both EPA and DEQ operating redundant programs within the state. The Oregon legislature and EQC have supported the state's pursuit of authorization and implementation of a single hazardous waste management program in Oregon.

3) Complexity or redundancy of the rules

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The Hazardous Waste Management rules are complex. Simplification is difficult to achieve since the rules are federally driven, although annual reviews reduce redundancy. The Hazardous Waste program develops and distributes factsheets and provides technical assistance and training on the rules to businesses and other government agencies to help clarify the rules.

4) Overlap or conflict with rules by other jurisdictions

The Department is not aware of any conflicts with local government or other agency of the state in implementing these regulations. No similar local government regulations exist.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

The cost and liability of disposing of hazardous wastes are economic disincentives to generating the wastes. Emphasis on toxics use reduction resulting in less wastes being produced and on-site management of remaining wastes rather than off site disposal will affect any proposed rule amendments. As industry develops new on-site technologies for treatment and recycling, the rules will need to be reviewed.

6) Legal basis for rules

ORS 465, 466, 468, and 183.

7) **Potential for job producing enterprises**

As a result of the Hazardous Waste rules jobs are created for consultants, environmental coordinators and hazardous waste management services. In addition jobs are created, at the state level, to oversee the regulated community.

8) Internal consistency of the rules

No inconsistencies within the rules were noted in review.

PCBs: OAR Chapter 340, Division 110

<u>Note:</u> In 1990, DEQ received a grant from EPA to study Oregon's regulation of PCB. As part of the grant, the Hazardous and Solid Waste Division (HSWD) is conducting an in-depth review of the need, complexity and duplication of DEQ's PCB rules. The review is due to be completed by July 1993.

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1) Economic impact of the rule

There is very little if any economic impact of this rule.

2) The continued need for the rule

Although DEQ has never received funding nor has it ever implemented a PCB program, DEQ is required by statute to develop rules to regulate PCB disposal. Please see the response to Criteria No. 4 for further explanation of the continued need for the rule.

3) The complexity of the rule

DEQ's PCB rules are virtually identical to the federal rules. This reduces the complexity of the rule for the regulated community.

4) The extent to which the rule overlaps, duplicates or conflicts with other state rules or federal regulations

DEQ's PCB disposal rules overlap with federal PCB rules; however, the legislature made a decision to provide state authority to regulate PCB in addition to EPA's oversight. In some cases, Oregon has decided to regulate PCB more stringently than EPA which is the case for siting PCB disposal facilities. Another reason for maintaining state authority is that EPA may focus only on the larger problems based on its regional perspective, while the DEQ may place a higher priority on certain environmental problems in Oregon, than would EPA.

There is internal duplication and conflict of DEQ's rules covering PCB spill cleanup. The rules regarding PCB spill cleanup are confusing since there are three different divisions which may apply. The three rules which may apply to PCB spills are: Division 108, Spills and Releases; Division 110, PCBs; and Division 122 Environmental Cleanup rules. Staff will be proposing possible solutions by July 1993.

5) The degree to which technology, economic conditions or other factors have changed

There have been no substantial changes in economic or technological factors affecting this rule.

6) The statutory citation or legal basis for the rule

ORS 466.005 to 466.385 and ORS 466.505 to 466.530

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7) **Potential for job-producing enterprises**

This rule has very little potential for producing jobs beyond those which were produced through federal rules. As a result of federal PCB rules, some utilities have hired and trained workers to carry out PCB regulations.

8) Internal consistency of the rules

As mentioned in response to Criteria No. 4, there are internal inconsistencies regarding spill cleanup levels. The Department is well aware of this problem and is working on a resolution.

Used Oil/Road Oiling Rules: OAR Chapter 340, Division 111

<u>Note:</u> Adoption of federal used oil rules in September 1992 has made it necessary to readdress the Department's rules on this subject. The Department intends to amend or replace these rules at the time new state used oil rules, based on the new federal rules, are adopted. This new rule adoption is scheduled for mid-1993.

1) Economic impact of the rules

When adopted in 1990, these rules essentially put an end to the environmentally risky practice of spreading untested used oil for dust control. Most companies that spread used oil either switched to other dust control products or quit business. Other products used for dust control are more expensive, at least initially, than used oil, since used oil can often be obtained for free (plus the cost of collection). However, the other products do not pose the risk to the environment that used oil poses.

2) Continued need for the rules

Restrictions on spreading of untested used oil need to be continued. However, new federal rules will necessitate amending or replacing the existing Division 111 rules.

3) Complexity or redundancy of the rules

The new federal rules prohibit use of used oil for dust control, except in certain states that have an EPA-approved program for regulating dust control. The Department does not intend to ask for this exemption, but instead will just prohibit the use of used oil for dust control as set forth in the new federal rules. This will simplify the existing rules. Agenda Item N Attachment A Page 51 January 29, 1993

4) Overlap or conflict with rules of other jurisdictions

The Department is not aware of any local government or any other agency of the State that regulates the spreading of used oil in the environment for dust control. Any conflict with new federal rules will be corrected at such time as the new used oil rules are considered for adoption.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

There has been no substantial change in economic or technological factors affecting the use of used oil for dust control.

6) Legal basis for the rules

ORS 469.869 to 468.870.

7) **Potential for job producing enterprises**

The rules have had virtually no impact on employment. Some new jobs may have been created in production and distribution of alternative dust control substances, offsetting loss of jobs from persons formerly spreading used oil for dust control.

8) Internal consistency of the rules

No inconsistencies within the rules were noted in review.

SOLID WASTE PROGRAMS

Solid Waste Management: OAR Chapter 340, Division 61

<u>Note</u>: On October 9, 1991, the EPA adopted minimum national performance standards for municipal solid waste landfills under Subtitle D of the Resource Recovery and Conservation Act. States with EPA-approved programs benefit from considerable flexibility in implementing these performance standards. In response, the Department undertook revision of 340, Division 61 to incorporate the EPA rules by reference and, in general, to update the entire Division. This process is underway, with adoption of the revised rules (to be renumbered in Divisions 93 through 97) planned for March 1993. This is an important part of receiving "approval" for Oregon's solid waste program from EPA. Agenda Item N Attachment A Page 52 January 29, 1993

1) Economic impact of the rules

The economic impact of the rules is substantial. They not only cover siting, design and operation of all solid waste disposal facilities, but also set solid waste fees for these facilities. The federal Subtitle D criteria will add significantly to the cost of operating municipal solid waste landfills, but the federal criteria are effective whether or not the Department adopts them into its rule. The flexibility that DEQ will have as an "approved" state would lessen the economic impact of Subtitle D on many landfill permittees by allowing alternative designs and procedures. Permit fees are set at a level determined by DEQ's legislatively approved budget.

2) Continued need for the rules

Regulation of solid waste disposal sites is required by statute and is essential in protecting the groundwater of the State. The rules implement the Department's current, ongoing program regulating the disposal of solid waste. Continuation of the rules is needed as the framework for this program.

3) Complexity or redundancy of the rules

The current rulemaking attempts to reduce the complexity of the rules by clarifying and streamlining them, rearranging sections into a more logical order, deleting obsolete provisions and, in general, updating the rules to reflect current practices and technologies. Division 61 applied to all types of solid waste disposal facilities. Three of the new divisions apply only to certain kinds of facilities: Division 94 to municipal solid waste landfills, Division 95 to non-municipal solid waste land disposal sites, and Division 96 to other facilities including energy recovery facilities, compost facilities and transfer stations. A rule change in April 1992 simplified the solid waste permit fee structure.

4) Overlap or conflict with rules by other jurisdictions

There is some overlap between the provisions of federal Subtitle D and proposed Division 94. However, the Subtitle D criteria are phased in over time, and some municipal solid waste landfills are exempt from some of those criteria. State regulations need to be in place to cover those cases. A new clause in the rule notes that where conflicts between state and federal regulations may occur, the more protective standard shall apply. There are also a few conflicts between Subtitle D requirements and state law. Although Subtitle D is being adopted by reference (and municipal solid waste landfills are subject to the requirements of

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federal law in any case), the current rule revisions retain the conflicting state provisions. The Department is requesting necessary legislative changes be made by the 1993 Oregon legislature so state law will be consistent with the federal criteria. After that happens, the rules will be further revised to reflect legislative changes (anticipated to be carried out in fall/winter 1993).

The EQC is required by statute to adopt rules governing, among other things, the collection and transportation of solid wastes. Local governments also often have ordinances or contract agreements with garbage haulers governing such matters. In the current rule revision the Department has tried to remove provisions in its rules that might conflict with local ordinances, in general, by allowing flexibility.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

The Department's solid waste rules have been modified over time to reflect advances in technology and practices and are flexible enough to accommodate new technology. The Subtitle D criteria represent, in general, an increase in landfill design and operating standards over current state rules. Solid waste disposal site operators are required to meet a non-degradation groundwater protection standard. Meeting this standard usually requires use of best available technology (e.g., composite liners for landfills). Increased costs associated with higher, more environmentally protective landfill design standards should help avoid the considerable costs of remediating contaminated groundwater. The rule is being updated to accommodate new solid waste disposal technologies such as bioremediation of petroleum contaminated soils.

6) Legal basis for rules

ORS 459.045, 459.235, 459A.110, 459A.115 (in general 459.005 to 459.405)

7) Potential for job producing enterprises

The higher Subtitle D criteria for municipal solid waste landfills will likely result in a need for more highly trained (and perhaps more numbers of) workers at landfills to meet new screening and other operational requirements. The criteria will also likely encourage other small, often unattended, landfills to close. This could create additional jobs in transferring solid waste to other, larger sites. Broader requirements for groundwater monitoring and landfill gas monitoring could lead to additional economic activity for suppliers of such items.

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8) Internal consistency of rules

The rule revision now underway examined the rules for internal inconsistencies, and text has been changed accordingly in the few cases noted.

The solid waste rules have in their entirety undergone close scrutiny by staff and by an advisory committee over the past year. Changes have been proposed to improve their format and generally update them in conjunction with adopting federal solid waste criteria. The Department intends further future rule updates to accommodate changes in legislation during the 1993 legislative session, and perhaps to incorporate further guidance from EPA.

Waste Tire Program Administrative Rules: OAR 340-64-005 to 340-64-170

1) Economic impact of the rule

The 1987 Oregon legislature passed House Bill (HB) 2022 intended to mitigate the environmental dangers associated with Oregon's stockpiles of waste tires and to stimulate the recycling market for the stockpiles as well as the waste tire stream of approximately two million additional waste tires annually. A fee of \$1 on the sale of new replacement tires was initiated, on January 1, 1988 to fund the program. The Department administered a 1 cent per pound reimbursement program to users of rubber from waste tires beginning in November 1988. In 1991, an advisory committee and members of the tire associated regulated community decided the economic stimulus of 1 cent per pound reimbursement subsidy to the end user of Oregon recycled tire rubber ran the risk of sustaining a "false" market. Since the stimulus had worked well, the market could now function without a subsidy. HB 2246, passed by the 1990 legislature, prohibits the use of funds from the Waste Tire Recycling Account for a reimbursement subsidy after June 30, 1992, and ended the collection of the \$1 fee on new replacement tires as of September 30, 1992.

2) Continued need for the rule

A number of features of the Waste Tire program have continued. DEQ will continue cleanup and abatement of waste tire piles, permitting and regulation of waste tire storage sites, and the regulation of commercial waste tire haulers. Although the collection of the \$1 fee on all new replacement tires sold has ended, monies remain to continue cleanup and abatement, and regulation of storage sites and haulers. The rule is needed to allow the continued regulation, cleanup and enforcement activities. Portions of the rule affecting reimbursement to recyclers of waste tires need not be continued. Specifically, these are OAR 340-64-100 through 340-64-135(13c). Other sections of the rule should be modified to eliminate the reimbursement provisions.

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3) Complexity and redundancy of the rule

Waste Tire program rules have been updated and revised on numerous occasions, both to clarify existing parts and to add new parts to facilitate the effective administration of the rule.

4) Overlap or conflict with rules by other jurisdictions

Federal waste tire regulations have been under consideration for a number of years. The most commonly mentioned provisions of federal regulations are generally consistent with Oregon's. Local regulations, such as those concerned with land use planning, fire and vector control, are taken into account before permits are issued. A process of inter-governmental coordination and agreements was established to facilitate cooperation with other government agencies in the cleanup of tire piles. There are no definite or obvious conflicts or duplications of other Oregon laws or regulations.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

The Department believes that the reimbursement subsidy has created a sufficiently stable market for the recycling of waste tires that the recycling of Oregon's two million annual generation of waste tires can be sustained without government subsidy. The economic stimulus also helped motivate cement kilns and pulp mills, which burn 84 percent of Oregon's annual waste tire stream, to install modern air pollution control mechanisms to permit the burning of waste tires. The further installation and use of innovative technologies are assumed not to be necessary to sustain the tire recycling market. A number of demonstration projects entailed the design of rubberized asphalt specifications for Oregon's climate and the paving of roads in both urban and rural areas of Oregon to assess the cost effectiveness, safety and durability of rubberized asphalt. The Oregon Highway Division will continue to monitor the demonstration pavements and, if the rubberized asphalt proves to be both safe and cost effective, may permit the state to use a large percentage of Oregon waste tires in rubberized asphalt.

6) Statutory citation or legal basis for the rule

ORS 459.504 to ORS 459.790.

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7) The rule's potential for enhancement of job producing enterprises

The cleanup of waste tires has served to provide employment, albeit temporary, in the labor necessary for the cleanup of waste tire piles. The regulation of hauling waste tires allows those carriers permitted under the waste tire program to commercially solicit the hauling of waste tires from others as a business enterprise and serves as a major job activity for some permittees and as supplemental employment for others. With a sustainable tire recycling market, processors of waste tires will need laborers for those features of processing not provided by machinery, as well as machine operators. Widespread use of rubberized asphalt has great potential for jobs in the making and laying of rubberized asphalt, and the repair of highways and roads.

8) Internal consistency of the rule

The Waste Tire rule is consistent with other features of the Solid Waste rule.

Solid Waste Reduction and Recycling Rules: OAR Chapter 340, Divisions 90 and 91

Note: These rules have just recently (December, 1992) been amended and renumbered from OAR Chapter 340, Division 60 and 61. The amendments are a result of 1991 legislation.

1) Economic impact of the rule

When initially adopted in 1985, these rules impacted the private recycling collection industry and local governments by requiring, for the first time, that recycling programs be established in communities over 4,000 in population. Garbage service rates increased in most instances to pay for the additional collection costs associated with curbside collection of recyclables and the promotion/education requirements necessary for local recycling programs.

In 1989, these rules were amended to require recycling certifications and approval of waste reduction programs for those communities wishing to send 1,000 and 75,000 tons of waste a year, respectively, to Oregon landfills. The economic impact of this was that landfills had the additional work of seeking approval for their customers through an application process, and local governments meeting these waste disposal conditions had to implement waste reduction and recycling programs. The economic impact was primarily on out-of-state waste generators.

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The rules, as recently amended, expand the requirements for local recycling programs in communities of 4,000 in population or more and expand reporting requirements for local government and private recycling industry. These expanded requirements will likely result in solid waste collection rate increases to citizens and businesses between \$1.50 and \$5 per month.

2) Continued need for the rule

The rules help insure that solid waste is recycled and the amount of waste disposed is reduced. The state has a 50 percent recycling goal for the year 2000. Until that goal is achieved, these rules will be necessary to insure recycling programs are available to the citizens of Oregon and that waste being disposed in Oregon from other states is reduced as much as possible before it comes here for disposal.

3) Complexity or redundancy of the rules

These state rules are the only rules addressing recycling and waste reduction in Oregon. The federal government does not have parallel programs or regulations. In the recent amendment and renumbering process, existing rules which were unnecessary or inconsistent with new legislation were deleted.

4) Overlap or conflict with rules by other jurisdictions

The Department is not aware of any overlap or conflict.

5) Degree to which technology, economic conditions, or other factors have changed in the affected subject area

The demand by citizens of Oregon for improved recycling collection and markets for recyclable materials has grown significantly in the past five years. The economics and the technology of solid waste management is dramatically changing. Solid waste recycling has become "big business" and the costs of establishing effective collection programs have grown in the last few years. Market development has not kept pace with the collection of materials and, therefore, the use of secondary materials in manufacturing has not contributed significantly to balance the collection costs. The next decade will continue to see major changes in the solid waste industry.

6) Legal basis for the rule

ORS 459A.025, 459.045 and 468.020

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7) Potential for job producing enterprises

There is insufficient data to support statements regarding the impact of state recycling programs on the job and business market. However, these rules are aimed at increasing the amount of material recovered for use in remanufacturing of products. If the result is an increased stable supply of certain materials, one could logically expect to see new businesses develop that are centered on using this supply of material in new manufacturing processes. There is likely to be increased or more stable employment in the solid waste collection industry also.

8) Internal consistency of the rules

No inconsistencies in the rules are noted. The recent amendments eliminated inconsistencies with past existing rules.

UNDERGROUND STORAGE TANK PROGRAM

- UST Reimbursement Grant Program (OAR 340-170-005 through -080)
- UST Financial Assistance Program Rules (OAR 340-172-005 through -140)
- UST Insurance Co-payment Rules (OAR 340-174-005 through -090)
- UST Grant Program Rules (OAR 340-175-005 through -110)
- UST Loan Guarantee Rules (OAR 340-176-005 through -090)
- UST Reduced Interest Rate Loan Rules (OAR 340-178-005 through -080)
- UST Loan Guarantee and Interest Rate Subsidy Program (OAR 340-180-005 through 120)
- Registration and Licensing Requirements for UST Service Providers and UST Supervisors (OAR 340-160-005 through -150)
- Registration and Licensing Requirements for UST Soil Matrix Cleanup Service Providers and Supervisors (OAR 340-162-005 through -150)
- Registration and Licensing Requirements for Heating Oil Tank Soil Matrix Cleanup Service Providers and Supervisors (OAR 340-163-005 through -150)

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- Underground Storage Tank Rules (OAR 340-150-001 through -150)
- Federal Underground Storage Tank Regulations (40 CFR 280 Amended by OAR 340-150-003 and -004)

Background

In 1984, Congress determined that spills and releases from underground storage tanks holding petroleum and hazardous substances posed a threat to the Nation's groundwater and associated vapors created threats of fire and explosion. Congress passed Subtitle I of the RCRA that directed the EPA to adopt technical and financial responsibility standards. Congress also provided the opportunity for states to obtain approval to operate the federal program in lieu of EPA. EPA passed the technical standards in December, 1988 with a tenyear phase-in schedule. EPA passed the financial responsibility rules in January, 1989 with a two-year phase-in schedule.

The 1987 legislature gave authority to the DEQ to develop a state underground storage tank program and seek approval from EPA. In addition to technical and financial responsibility standards, the legislature also gave DEQ authority to implement a contractor licensing and supervisor certification program. In 1989 and 1991, the legislature passed a financial assistance program for persons with underground storage tanks holding motor fuel for resale.

1) Economic impact of the rules

An economic impact study prepared for EPA estimated that full compliance with federal standards adopted in December, 1988 would result in the closure of as many as 50 percent of the retail businesses with underground storage tanks due to the costs of compliance. In its testimony to the 1989 and 1991 legislature, the DEQ predicted that the closures would more likely occur with smaller retail stations in rural areas and that as many as 1,000 of Oregon's 2,130 stations may close. An average cost of compliance is estimated at \$100,000 to upgrade a three-tank station's equipment to new tank standards and to cleanup contaminated soil and groundwater. In addition, insurance to meet the financial responsibility requirement may cost as much as \$25,000 to \$35,000 per site with old tanks, if it is available at all. Stations with new equipment should see insurance costs in the range of \$2,500 to \$3,500.

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At the same time that businesses with tanks are experiencing significant costs to meet national tank standards, other businesses that remove and install tanks will realize substantial new business opportunities over the next ten years. Equipment manufacturers and distributors and excavation, electrical and plumbing contractors will see new jobs at up to 5,000 business locations. In addition, environmental consultants and testing laboratories will see new businesses as a result of the need to clean up contaminated soil and groundwater at many, if not most, of these same locations.

As a result of the estimated \$100,000 impact, the legislature passed a financial assistance program for persons with underground storage tanks holding motor fuels for resale. Depending on financial need, number of tanks owned and location, the legislature established programs to provide:

- Loan guarantees of 80 percent not to exceed \$80,000
- Lower interest rate to between 1.5 to 7.5 percent
- Grants of \$50,000 or \$85,000
- Insurance premium co-payments of 50, 75 or 90 percent
- Previously the legislature also passed a pollution control tax credit program providing for a 50 percent tax credit over a ten-year period.

2) Continued need for the rules

The federal program is just entering its fifth year of its ten year phase-in program. Because of the high cost of compliance, many businesses will be waiting until the last minute to upgrade or replace their tanks. Because of the state's financial assistance and tax credit program, some tank work is being undertaken in the early years but substantial work remains to be done.

3) Complexity or redundancy of the rules

In adopting national rules, EPA relied heavily on existing industry standards as published by the Petroleum Equipment Institute, American Petroleum Institute, Steel Tank Institute, fiberglass manufacturers and existing fire codes. Its financial responsibility rules closely parallel similar rules and financial instruments as promulgated by EPA for the hazardous waste program in 1980.

In adopting technical and financial responsibility rules, DEQ adopted the federal rules by reference with only slight amendments to comply with state law (i.e., adding a permit requirement that does not exist at the federal level).

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4) Overlap or conflicts with rules by other jurisdictions

Oregon law preempts local programs unless otherwise approved by the Department to operate in lieu of the state program. The Oregon law, however, does not preempt laws administered by land use and fire agencies. However, since EPA adopted rules consistent with the national fire codes, the Department is not aware of conflicts with the Oregon Uniform Fire Code. Further, the Department is not aware of any conflicts with land use laws at this time. In adopting these rules, the Department did not receive any comments on its statement that the rules were inconsistent or incompatible with state land use laws.

5) Degree to which technology, economic conditions or other factors have changed in the affected subject area

As a result of contaminated soil and groundwater from single-wall steel tanks and piping that corroded, the standard industry practice now involves steel tanks with cathodic protection (corrosion control), double wall tanks and piping or fiberglass tanks and piping. Innovation continues with corrosion resistant flexible piping, automatic tank gauges to monitor inventory, soil vapor and groundwater monitoring wells and spill and overfill protection manholes and reservoirs being developed and becoming industry standards.

The new generation of equipment has substantially lowered financial responsibility or insurance costs from the \$25,000 to \$35,000 area to one-tenth that amount. And there are competing insurance companies ready to write policies at these competitive prices.

6) Legal basis for the rules

ORS 466.705 to 466.835 for the technical, financial responsibility, contractor licensing and supervisor certification programs, Chapter 1071, Oregon Laws 1989 and Chapter 863, Oregon Laws 1991 for the financial assistance rules.

7) Potential for job producing enterprises

It is clear that small marginal operations will be closing as a result of marketplace price competition exacerbated by the cost of complying with the national tank rules. On the other hand, it is estimated that some \$200 million will be invested in new tank equipment, interest rate payments to commercial lenders and insurance premium co-payments to insurance companies by the facilities that remain in business. Approximately \$100 million will be paid Agenda Item N Attachment A Page 62 January 29, 1993

for by the state program, while owners and operators of tanks will have to arrange the other \$100 million. In addition, the State General Fund will see a loss of revenue of some \$33 million as a result of the Pollution Control Facility Tax Credit program. That represents some \$66 million in investments over and above the grants that may be given based on financial need.

Therefore, these investments will produce or sustain many manufacturing, shipping, wholesale and retail equipment sales and construction jobs through the compliance deadline in late 1998.

8) Internal consistency of the rule

No inconsistencies within the rules were noted in review.

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ENVIRONMENTAL CLEANUP PROGRAMS

OARs issued and administered by Environmental Cleanup Division (ECD) are:

- Environmental Cleanup Rules (EC Rules): 340-122-010 through 110.
- Cleanup Rules for Leaking Petroleum Underground Storage Tank (UST) Systems (UST Cleanup Rules): 340-122-205 through 360.
- Site Discovery and Ranking Rules: 340-122-410 through 470.
- Oil and Hazardous Materials Spills and Releases: 340-108-001 through 080.
- Illegal Drug Lab Cleanup Assistance: 340-140-010 through 100.

The ECD recommends that these rules be continued without change.

1) Continued need for the rule

Cleanup of Oregon's environment is a high priority to the legislature. Environmental cleanup laws specify that rules will be developed to implement environmental cleanup programs. The initial EC rules are four years old. Site Discovery and Ranking rules are only two years old. During the past two years, amendments to both the EC and UST Cleanup rules have been adopted. The amendments clarify and streamline the existing rules. Amendments to the Illegal Drug Lab Cleanup Assistance rules became effective in January 1992. ECD rules are relatively new and have been amended when the need for clarification or change arises.

All ECD rules implement current, ongoing environmental cleanup programs, which, therefore, justifies their continuance.

2) The complexity or redundancy of the rule

Since the adoption of its rules, the Division has consistently looked for ways to clarify standards and simplify procedures wherever possible. Amendments to both the EC rules and UST Cleanup rules as described above streamline the cleanup process for sites which qualify as soil-only cleanups and petroleum in groundwater cleanups respectively. The Illegal Drug Lab Cleanup Assistance rules were amended in March 1992 to simplify the funding of drug lab cleanups by eliminating provisions regarding the sharing of costs among agencies.

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Regulations to clarify the potential liability of lenders, fiduciaries and government agencies are scheduled for public hearings in October 1992 with rule adoption planned for December 1992. In addition, the ECD, HSWD and Solid Waste Orphan Site Account Work Group are currently developing regulations for use of the Solid Waste Orphan Site Account. These proposed amendments will further clarify portions of the EC rules.

ECD rules have consistently been reviewed for clarification and simplification as evidenced by the recently adopted amendments and current rule development.

3) Overlaps or conflicts with rules by other jurisdictions

Parallel federal regulations exist both for the EC rules and the UST Cleanup rules. The federal Superfund program implemented by the EPA regulates the cleanup of sites in Oregon that are on the National Priorities List. While Oregon's EC law and rules are patterned after the federal program, state cleanup standards are more stringent. In addition, the state program has refinements such as the soil cleanup standards process which is absent in the federal program. The State UST cleanup program was also patterned after the federal Leaking UST program, and is also more stringent. The State program has sole jurisdiction over UST cleanups in Oregon.

The cleanup rules do overlap to some degree with other state cleanup regulations, primarily those of the HSWD. However, the regulations do not conflict, but rather, provide various cleanup options to better address unique problems. For example, solid waste landfills may be cleaned up under a solid waste permit issued by the HSWD or under the EC rules (for hazardous substance cleanups) depending on the nature of the contamination. Oil and Hazardous Materials Spills and Releases rules are written to allow emergency spills the flexibility to be cleaned up under the program that provides the best protection.

No similar local government regulations exist.

4) The degree to which technology, economic conditions or other factors have changed in the subject area affected by the rule

New technology occurs continually in the field of hazardous waste cleanup. ECD rules are flexible enough to accommodate new technology which may cause changes in investigation and cleanup methods.

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Hazardous waste cleanup is expensive and may be an economic drain on responsible parties. Public comment has indicated that greater certainty in the cleanup process is needed so that responsible parties can determine costs and schedules with sufficient confidence. Greater clarity concerning cleanup goals and the cleanup process has been attained with the addition of soil cleanup standards to the EC rules and petroleum groundwater cleanup standards to the UST Cleanup rules.

Proposed amendments addressing lender and fiduciary liability will further clarify the EC rules by providing a degree of certainty regarding the potential liability of certain lending and fiduciary activities. This will enable lenders to consider loans which were formerly viewed as being too risky. The proposed rule amendment is expected to free up credit and reduce transaction costs.

Changes in technology and economic conditions have been considered in the original rules and in the recently adopted and proposed rule amendments.

5) Statutory citation or legal basis for the rule

<u>OAR:</u>

ORS:

340-122-010 through 110	465.420
340-122-205 through 360	466.746
340-122-410 through 470	465.405 and 465.410
340-108-001 through 080	466.625
340-140-010 through 100	475.425

6) The rules' potential for enhancement of job producing enterprises.

The environmental cleanup law and regulations have greatly expanded the environmental consulting and contracting industry. The Underground Storage Tank Cleanup program has approximately 1700 contractors on its service provider list certified to conduct decommissioning and cleanup of leaking underground storage tanks. The ECD published a Directory of Environmental Consultants in March 1992 listing over 80 environmental investigation and cleanup consultants and contractors in Oregon and the Pacific Northwest.

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In response to the increasing number of environmental firms in Oregon, Oregon Environmental Technology Association (OETA), a private, non-profit professional organization was formed last year. One of OETA's major goals is to help develop Oregon's environmental industry. In addition, the Pacific NorthWest Economic Region, a coalition of legislators from Oregon, Idaho, Washington, Alaska, Montana and the Canadian provinces of Alberta and British Columbia, recently joined to develop strategies to help environmental firms in these areas compete regionally and worldwide.

Oregon's burgeoning environmental consulting and contracting industry is largely a result of strong environmental cleanup legislation and implementing regulations.

Summary

Cleanup of Oregon's environment is a high priority to the legislature and citizens. All ECD rules deal with environmental cleanup in one form or another. All cleanup programs are active and ongoing. ECD rules and cleanup programs are relatively new. Even so, during the past four years, the rules have been reviewed and revised as the need for clarification and process simplification has arisen. Citizen concerns have also triggered rule review. While some rules overlap to a degree with other state cleanup regulations, more options are available to better address unique cleanup problems. The rules are flexible enough to accommodate changes in technology and economic conditions. All ECD rules are authorized by statute.

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AIR QUALITY PROGRAMS

Air quality programs are covered in OAR Chapter 340, Divisions 20-35.

The Air Quality Division (AQD) conducted a rule-by-rule evaluation of its rules for the current periodic rule review. Each rule was assigned for review to the staff person who has the most direct programmatic involvement with the rule, a process which involved staff from every section of the AQD. A checklist was developed to provide a uniform format for evaluation of the rules. Instructions were developed for the checklist and each reviewer received training to ensure that the reviews would be accurate and complete. The reviews were conducted during January and February, 1992. A copy of the checklist is included in exhibit A-1.

The checklist was designed for two purposes. First, a series of items on the checklist identified clean-up issues. These included typographical and grammatical errors, incorrect citations, unclear applicability, missing references to test methods, and administrative issues in rules submitted to the EPA as State Implementation Plan (SIP) revisions. Second, a series of items on the checklist identified issues related to the factors required to be considered during the periodic rule review under ORS 183.545 and 183.550. These included evaluating whether the rule:

- is still needed;
- could be simplified;
- conflicts with or unnecessarily duplicates other law;
- could be revised to reduce economic impact or enhance job producing enterprises without undermining its purpose or violating federal or state law;
- needs revisions due to changes in technology or other factors; and
- is based on appropriate legislative authority.

Staff were instructed to determine if the rule needed revisions or needed further evaluation to determine if a revision was needed. In conducting the reviews, staff were provided with comments from the public pertaining to air quality rules which were received in response to the rule review public notice. Particular emphasis was placed on identifying opportunities to minimize the economic effect of rules on small businesses consistent with statutory and program requirements.

The completed checklists were compiled and reviewed by management. Issues identified on the checklists were divided into two categories:

- non-substantive changes needed to clean-up, simplify and clarify the rules; and
- substantive issues requiring further evaluation, analysis or direction.

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Non-substantive changes

The non-substantive changes were compiled into a comprehensive housekeeping amendment package for the air quality rules. Many of the factors identified in the statute were addressed in this package. For example, rules specifying compliance schedules which had expired were determined to be no longer needed and were proposed to be eliminated. A number of rules were proposed to be simplified by clarifying regulatory language, correcting citations and renumbering. Potential conflicts with federal law were proposed to be eliminated by updating citations where federal rules are incorporated by reference. The statutory authority for all rules was proposed to be updated by correcting citations to the ORS. This package received hearing authorization on October 22, 1992, a hearing was held on November 24, 1992, and the revised package is proposed for adoption in a separate agenda item (Agenda Item J) for today's meeting.

Substantive Issues

Several substantive issues were identified during the public review and internal review. Because each of these issues requires separate analysis and affects different sources, the AQD decided to address them separately during rulemaking actions occurring over the next 12 to 18 months. The issues raised during public review are included in Attachment B. The following issues were identified during the internal review.

1) Should the Noise Control rules be modified to eliminate reporting requirements?

The Department dropped the Noise program in 1991 as a response to Measure 5 budget cuts. However, the noise control rules remain state law and are being enforced by many local governments. The continued viability of the rules is also necessary to allow citizens to file lawsuits against sources which are in violation.

However, when the Department eliminated the Noise program, Division 35, the noise rules, were not modified. This lack of modification has created confusion for the regulated community and local authorities charged with enforcing the standards. This is due in part to the fact that the rules contain not only noise standards, but also requirements for source submittals to the Department and Commission. Under the current version of the rules, the Commission has an oversight role and specifically reviews requests for variances from noise standards.

These rules require substantial revision in order to clarify what, if any, submittals are required and to which authority such submittals are to be made. The Department seeks guidance from the Commission on the extent to which the Department and Commission should retain any oversight role. Agenda Item N Attachment A Page 69 January 29, 1993

2) Should the Woodstove Efficiency Certification be eliminated and the EPA program used instead?

The Department is currently considering eliminating its independent Woodstove Efficiency Certification program in response to budget cuts. The Department eliminated its independent emission certification program several years ago and adopted EPA's program. Therefore, to replace the Department's efficiency certification program, the Department suggests adopting the rest of the EPA program. Woodstove manufacturers would apply directly to EPA for emission and efficiency certification, not the Department. Thus, manufacturers would have to obtain certification from EPA before their woodstoves could be sold in Oregon.

The Department's and EPA's programs are very similar. ORS 468A.480 requires that efficiency certification be based on test data. While the Department has required each manufacturer to actually test woodstoves and submit the results of these tests, the EPA program references test data to determine default values for stoves. If a manufacturer submits data which demonstrates a woodstove falls within this range, then the woodstove is certified for efficiency.

3) Should the 40 percent opacity and 0.2 grain loading standards for existing Sources be phased Out (340-21-015 and 340-21-020)?

Staff raised the issue of whether the 40 percent opacity and 0.2 grain per standard cubic foot standards for existing sources should be eliminated or phased out. This standard applies to existing sources, that is, air pollution sources in existence prior to the New Source Review and New Source Performance Standards rules of June 1, 1970. The sources to which the old standard applies are older and many may no longer be in existence. Others may be approaching the end of their useful life. Elimination of the standard may cause some existing sources to violate the stricter standard unless new control equipment is added or other measures are implemented. For older sources, this would likely not be cost effective and could result in the shut down of the source. Imposition of the stricter standard on existing sources covered by Title V of the Clean Air Act may also be counter to the language of ORS 468A.310 (HB 2175). A phase out of the standard could potentially allow existing sources to continue until the useful life of the source had ended. The Department will examine this issue in light of the limitations of ORS 468A.310, the potential number of sources effected, and the possibility of phasing out the standards over a reasonable length of time.

Agenda Item N ATTACHMENT B

PUBLIC COMMENT ON RULE REVIEW

This is a summary of the comments received that relate to particular rules and the agency response to the comments. Other general comments that did not relate to rules are available upon request.

 Paul L. Pfaff Bonneville Power Administration PO Box 3621 Portland, OR 97208-3621

Comment: Mr. Pfaff commented that DEQ's waste PCB rules overlap federal regulations in certain areas.

Response: The Hazardous Waste section at DEQ is reviewing its PCB rules as part of an EPA grant. This review will address the problem raised by Mr. Pfaff. Please see attachment A for further information about the PCB rules.

Bill Briggs
 President
 Oil Re-Refining Co. Inc.
 4150 N. Suttle Rd.
 Portland, OR 97217

Comment: Mr. Briggs suggests that all departments should agree upon one rule (DEQ, OSHA, Fire Marshall, etc...) and apply it the same.

Response: It is not feasible for many agencies to agree on one rule when the scope of their responsibilities are so different. Where there is overlap, the agencies do work out agreements for making rules complementary. For the most part, though, there is not overlap and there is a need for agency-specific rules.

Comment: All departments should be required to give written response to written requests within 30 working days or the department should receive a penalty.

Response: The Department makes an effort to respond to requests in a timely manner. In some instances, the complexity of the matter may lead to a longer response time. This type of time limit belongs in an agency policy rather than in a rule.

Comment: When complaints or orders are issued by the various agencies and, upon appeal, the appealing party wins, the agency should pay the expenses.

Response: The legislature has not provided authority to reimburse successful appellants for legal costs. This change would have to be made in statute rather than in rules.

Comment: There needs to be a better way to get proposed laws and rule changes to the people that are to be affected.

Response: The Department places a high value on public input and does more than is required by law. All programs have a public information component for this purpose. ORS 183 and OAR Chapter 340 Division 11 (Rules of Practice and Procedure) already require that the Department inform interested parties of rulemaking action. As mailing lists are refined, there will be greater assurance that the interested parties are all receiving the information they need. The Department values extensive use of advisory committees when developing rules. Presently, the Department has approximately 30 committees with a total of over 400 members. This is done voluntarily.

Alan Maxwell
 2560 Frontier Dr.
 Eugene, Oregon 97440

Comment: Mr. Maxwell suggested that flexibility be used on cleanup standards for underground storage tanks. He also commented that there are many individuals who are not complying with the rules and the rules should be applied consistently.

Response: Cleanup standards can currently be proposed by tank owners as part of a Corrective Action Plan. Also, the agency strives for consistency in application of rules by bringing regional staff together for quarterly training.

 Lynne A. Perry Miller, Nash, Wiener, Hager & Carlsen 111 SW 5th Portland, OR 97204

Comment: Revise OAR Chapter 340 Division 122 (Hazardous Substance Remedial Action Rules). The rules in Division 122 are written in a way that make them applicable to ORS 466.540 through 466.590. These have been renumbered and made part of Chapter 465. Make Division 122 consistent with that change.

Response: The Department's rules have been revised to make them consistent with the renumbering of the Oregon Revised Statutes. The changes identified by Ms. Perry have been made, along with many others.

Patrick LaCrosse
 Portland Development Commission
 1120 SW 5th
 Portland, OR 97204

Comment: Mr. LaCrosse commented that OAR 340-122-040 (Hazardous Substance Remedial Action Rules) uses a background contaminant level as the applicable standard for site restoration. Difficultly arises in determining such a background level for sites that have been exposed to several generations of development over a long period of time. Overall parameters should be developed that permit applicants to make predictions as to how the process proceeds.

Response: OAR 340-122-040 is not a "background contaminant level." More accurately it, and the balance of the environmental cleanup law, describes a process for achieving a "background level or lowest concentration level." Due to the complexity of environmental cleanup projects, this leaves a great deal of uncertainty for the private sector and developers about actual cleanup requirements. Guidance documents for determining background are under development and should prove to alleviate some of the ambiguity.

Comment: The DEQ Director has complete discretion in selecting the required activities leading to cleanup and the sequencing thereof. The ability of interested parties to predict and develop corresponding cost estimates becomes difficult with such undefined latitude. There is a wide variety of existing contaminants and a broad spectrum of cleanup options available. It seems that a categorization of contaminants and corresponding general procedures for their cleanup would lend some predictability to the process. More objective criteria for determining courses of action to be taken would enhance the process's and the Department's credibility.

Response: The discretion of the Director to select and/or conduct remedial activities is explicitly authorized in ORS 465.200 to 465.420, the enabling legislation for environmental cleanup activities. Where practical, the Department is interested in increasing the certainly of the environmental cleanup process. As far as categorization of contaminants is concerned, very few responsible parties would be well served by a "one size fits all" rule applied equally at all sites. The potential rigidity of numeric standards must be tempered with discretion and flexibility.

 Christopher Wohlers Century West Engineering 825 NE Multnomah, Suite 425 Portland, OR 97232

Comment: Mr. Wohlers had comments about the sampling and analysis activities at LUST sites as prescribed by the LUST groundwater policy guidance. The concern is that the new

sampling/analysis activities may be very costly. There was also concern that the guidelines would not get sufficient public scrutiny.

Response: The groundwater cleanup guidance does not supersede current administrative rules (OAR 340-122-205 through 360) which allow responsible parties to propose cleanup levels. Those cleanup levels may be proposed in a corrective action plan. The guidance was issued to provide a framework for evaluating groundwater investigations and cleanups until rules were formally adopted. Since Mr. Wohlers' comment was received, public comment on the proposed cleanup rules were solicited and the rule was adopted in June, 1992 and became effective in October, 1992.

Mark Morford
 Stoel Rives Boley Jones & Grey
 900 SW Fifth Ave Suite 2300
 Portland, Oregon 97204-1268

Comment: Mr. Morford submitted a comment on behalf of several clients concerning the growing conflict over the interpretation of the meaning of the "Highest and Best Practicable Controls" standard. Mr. Morford argued that the rule was originally adopted before specific control standards for a number of air pollution sources were established. Later on, DEQ adopted source specific standards. However, public interest groups have used the "Highest and Best" standard to challenge permits arguing that "highest and best" is a substantive standard which may, in some cases, require a source to control emissions more than is required by a source specific standard articulated elsewhere in the rules. Mr. Morford suggested that the "highest and best" standard be made clear that it is a policy statement the Department uses to guide its program.

Response: The issue of the interpretation of "Highest and Best" is currently part of citizen suit by the Oregon Environmental Council and the Sierra Club Legal Defense Fund against the Department. The comment recognizes this suit as an example of the conflict in how the rule is interpreted. When the lawsuit has been resolved, the Department will review this rule to assure that it is consistent with the court's decision.

Comment: Mr. Morford also commented on the appropriateness of requiring all sources to have short term plant site emission limits (PSELs). Mr. Morford believes the Department is strictly interpreting this rule to require all sources to have short term PSELs. However, Mr. Morford believes that the language of the rule allows, rather than requires, sources to have PSELs shorter than annually if it is "compatible with source operations". If source operations dictate that only an annual PSEL is appropriate, a short term PSEL should not be required.

Response: This issue is also part of the citizen suit mentioned above. Again, the Department, once the lawsuit has been resolved, will review this rule to assure that it is consistent with the court's decision.

 Ms. Theresa A. Parrone Air Quality Programs Manager Tektronix, Inc. PO Box 500 Beaverton, OR 97077

Comment: Should Notice of Construction and Approval of Plan Rules Allow for De Minimis Changes to Industrial Sources (OAR 340-20-020 through 340-20-030)?

Tektronix submitted a comment on the lack of a "de minimis" exception from the Notice of Construction program, OAR 340-20-020 through 340-20-032. Tektronix argues that the program requires that the Department be notified each time a source "constructs, installs, or establishes a new source of . . . emission . . ." Thus, a source is required to notify the Department each time it engages in any activity which leads to an increase in emissions, no matter how small. Tektronix suggests that the Department establish de minimis levels for different air contaminants. Any increase in emissions less than the de minimis level would not be required to go through Notice of Construction.

Response: The Department does not believe that a "de minimis" exception to this rule is appropriate. The Notice of Construction program is an extremely important tool for the Department. It allows the Department to identify new air pollution sources and to determine requirements that apply to the sources. It is also important for compliance assurance purposes for existing sources. It allows the Department to keep track of changes at existing sources and assure that permit requirements are not being violated. The Department also requires sources to go through this process even if the source changes result in a net emission reduction. For many of the smaller changes at sources, it is also used in lieu of the more complicated and costly permit modification process.

Comment: Should Sources be Permitted to Maintain Air Pollution Emergencies Source Emission Reduction Plans only at the Source (OAR 340-27-015)?

Tektronix also commented that this section is stricter than federal requirements and does not recognize the practical limitations of maintaining current reduction plans and the operations manual in Department files as well as on source sites. Tektronix requests that the Department consider amending the requirement so that the plans and manual only have to be maintained at source sites.

Response: Division 27 contains the Department's Air Pollution Emergency rules. These rules have been reviewed and approved by the U.S. Environmental Protection Agency (EPA) as part of the State of Oregon Clean Air Act State Implementation Plan. The Department has the latitude to be stricter than federal requirements in this area. Requiring sources to maintain a current copy of Source Emission Reduction Plans (SERP) with the Department as well as on plant sites is necessary for the Department to assure that proper approved procedures are being followed during emergency episodes, regardless of the rarity of those episodes.

Steven Lindland
 Engineering Supervisor
 Highway Division, Oregon Department of Transportation
 324 Capitol St. NE
 Salem, OR 97310

Comment: Should the Indirect Source Permit Requirement be Eliminated for Highway Project (OAR 340-20-100 through 340-20-135)?

The Oregon Department of Transportation (ODOT) submitted comments regarding the Department's Indirect Source program, OAR 340-20-100 through 340-20-135, as it affects the construction of highway projects. ODOT sees a need to amend the rules to be more consistent with the objectives of Title I of federal Clean Air Act (amended 1990). Because of the requirement to revise the State Implementation Plan (SIP) with regard to nonattainment areas, SIP requirements are likely to be much more stringent than the existing indirect source rules. This makes the rules' requirements redundant. Other parts of the rules that require analysis of total suspended particulate and lead emissions are no longer needed.

Response: As a result of the Clean Air Act amendments of 1990, the Environmental Protection Agency will be proposing new conformity rules affecting the Indirect Source program. When these regulations have been released, the Department will examine them and make the appropriate changes to assure that Oregon's Indirect Source rules are consistent with federal requirements.

10. Galen May Northwest Aluminum Company, Inc.
3313 W. Second St. The Dalles, OR 97058

Comment: Should the 28 Day Litmus Test be Eliminated from Reporting Requirements for Primary Aluminum Plants (OAR 340-25-285)?

Northwest Aluminum Company commented that a specific test required under OAR 340-25-285, source specific standards for primary aluminum plants, was technologically out of date, inaccurate and repetitive. Northwest Aluminum pointed out that the same rule also requires 12 hour sampling of ambient air which is more accurate. The company requested that the Department consider eliminating the 28 day litmus test from the reporting requirements.

Response: Department staff has discussed this requirement with numerous people. The conclusion was that the test was out of date and inaccurate. The state of Washington stopped requiring this test 20 years ago. The conclusion is to eliminate the requirement from our rules. This change is proposed as part of the housekeeping amendments to the air quality rules in a separate agenda item today.

 Jerry Van Scoy Executive Director Associated Floor Covering Contractors 13807 SE McLoughlin, Suite 608 Portland, OR 97222

Comment: Should the Commission Adopt the Recommended Work Practices of the Resilient Floor Institute for the Removal, Repair and Installation of Vinyl Asbestos Tile and Flooring (OAR 340-25-450 through 340-25-469)?

The Associated Floor Covering Contractors (AFCC) requested that the Department consider incorporating the Resilient Floor Covering Institute recommended work practices into the Department's asbestos abatement project rules, OAR 340-25-455 through 340-25-469. AFCC argues that the Department's current rules prohibit floor covering contractors from economically providing services to homeowners in terms of the removal and installation of vinyl floor covering. Floor covering contractors may not remove existing vinyl floors if they contain asbestos unless the floor covering contractor is also an asbestos abatement contractor. The cost of an asbestos abatement contractor removing vinyl flooring from a residence may be prohibitive. Therefore, the homeowner is forced either not to remove the floor, remove the floor one's self, or hire an illegal contractor. AFCC argues that the recommended work practices of the Resilient Floor Covering Institute have been determined to be protective under OSHA standards. AFCC also argues that if these work practices were adopted by the Department for these cases, it would give homeowners a legal and economic way to replace vinyl flooring.

Response: The Department has considered the recommended work practices of the Resilient Floor Covering Institute in the past. The Department recognizes that these work practices establish limits which are in compliance with OSHA standards. However, the Department also recognizes that these standards are those established to regulate worker exposure. The

Department is primarily responsible for protecting the general public from exposure to asbestos. The Oregon Legislature clearly charged the Department with this responsibility. Thus, the Department strongly believes that the standards it has set for asbestos abatement projects are reasonable and necessary to protect the general public. In terms of forcing homeowners into using illegal contractors, the Department also believes as the general public becomes more aware of asbestos abatement requirements and the purpose behind the requirements, they will see little incentive to use illegal contractors.

 Harold L. Ball, President Orenco Systems, Inc.
 2826 Colonial Road Roseburg, OR 97204

Comment: Revise rules for on-site sewage disposal to reflect new technologies. The widely used sand filter typically costs more than \$8,000. Revised rules could reduce that cost to the \$5,000 range.

Response: The agency recognizes that there is a need to revise the rules to accommodate new technologies. The Water Quality Division would like to establish a technical review committee to initiate rulemaking activity by Fall 1993. Mr. Ball's comment will be forwarded to the committee as soon as it is established.

 Steve Wert Wert and Associates
 9480 Garden Valley Rd. Roseburg, OR 97470

Comment: Mr. Wert suggest changes to Division 71 (On Site Sewage Disposal). He suggests that narrow trenches (less than 24 inches) need to be allowed at the discretion of the local sanitarian without a variance. He suggests many technical guidelines to make this feasible.

Response: The agency recognizes that there is a need to revise the rules to accommodate new technologies. The Water Quality Division would like to establish a technical review committee to initiate rulemaking activity by Fall 1993. Mr. Wert's comment will be forwarded to the committee as soon as it is established.

14. Stuart MatzkeWm. A. Matzke Co., Inc.1804 S. Bush Pl.Seattle, WA 98144

Comment: Mr. Matzke represents a product manufacturer that would like to market a new product to be used in on-site systems in Oregon. The product would be used in lieu of gravel disposal trenches.

Response: The concept needs to be reviewed by the on-site technical review committee as soon as it is established. Mr. Matzke's comment will be forwarded to the committee.

 Dennis Holloran Northwest Soil Consulting PO Box 206 Idleyld Park, OR 97447

Comment: Mr. Holloran had many technical suggestions related to Divisions 71 (On Site Sewage Disposal), 72 (Fee Schedule), and 73 (Construction Standards). He has suggestions regarding trenches, filters and tile-dewatering systems. He would also impose a 20 day limit for site evaluations.

Response: As with the previous technical suggestions regarding the on-site rules, Mr. Holloran's comments need to be forwarded to the technical review committee prior to and rulemaking changes. The 20 day limit would require many more staff than currently available to accommodate the workload.

16. Thom Seal PO Box 547 Prairie City, OR 97869

Comment: Mr. Seal questioned why agricultural land clearing and forestry slash burning are exempt from regulation when woodstoves are not. Mr. Seal specifically cited the regulation outlining air contaminant sources exempt from Department regulation.

Response: The Oregon Legislature charged the Department with regulation of emissions from residential woodstoves. Such regulation has become necessary due to the concentration of woodstove emissions in populated areas. In areas which are nonattainment for PM_{10} (fine particulate matter), woodstove emissions are a major contributor to the problem. Generally, the Department's authority to regulate woodstove emissions primarily focuses on requirements that

woodstoves sold in Oregon to be certified. DEQ participates in the regulation of slash burning through the adoption of the state Smoke Management Plan and Visibility Plan. Both plans are part of the DEQ's Clean Air Act State Implementation Plan.

The exemptions from Division 20 cited by Mr. Seal in OAR 340-20-003 simply codify exemptions in the statute (ORS 468A.020) adopted by the legislature. DEQ is specifically restricted by statute from regulating agricultural operations except field burning. Field burning is regulated by DEQ under Division 26. The Department of Forestry regulated slash burning. To avoid confusion, the Air Quality Division is proposing in a separate housekeeping item on today's agenda that the exemptions in OAR 340-20-003 be revised to more exactly follow the language in the statute.

Mr. Seal also had several comments on water quality related rules.

Comment: In 340-45-010(21) he would insert the underlined phrases so it would read "Toxic Waste" means any waste which will cause or can <u>at the concentration in the waste above background</u> to be expected to cause hazard. . .

Response: Insertion of the above language would require the Department to perform an extensive evaluation of background toxicity levels of various compounds at the point of discharge before taking any compliance/enforcement action. The Department believes that the definition as written is clear, enforceable and consistent with our mandate to protect the environment from toxic waste discharges.

Comment: 340-45-030 should establish specific timelines for the Department to respond and documentation of responses to applicants. Also, 340-45-055 should establish application timelines.

Response: The Department processes applications as rapidly as resources allow. The Department cannot issue a permit to discharge treated wastes until it is satisfied that water quality standards and treatment requirements will be met and the environment protected. The ability to process applications quickly and thoroughly depends more on available resources than on established timelines.

Comment: 340-45-033. Further streamline general permits and do not charge for them. Also, at a hearing on a general permit the Department should keep commitments made at the hearing and not change the permit without another hearing.

Response: It is difficult to comment on general permits without more specific information. The charges for permits are set to cover the agency's cost to issue them. The processing fees for new general permits range from \$50 to \$150. The purpose of the hearing is to gather

information based on the draft permit that may be taken into account when writing the final permit. The comments gathered at hearings are considered in addition to written comments. If a permit is changed based on comments, all individuals involved in the process are informed.

Comment: OAR 340-45-010 (23) should read:

"wastes" means sewage, industrial wastes and all other liquid, gaseous, solid, radioactive, or other substances which will <u>or can be proven to</u> or may cause pollution <u>at the concentration of the toxic substance in the waste</u> to any of the waters of the state <u>above background levels</u>. (Underlined text is proposed.)

Response: The water quality laws are not based on the Department proving that substances added to water cause pollution. The laws are based on establishing the beneficial uses of a waterbody and then adopting numeric and narrative criteria that protect that specific use. The criteria are determined from extensive reviews of existing information and data on the potential adverse effects wastes have on the chemical, physical and biological character of the waters of the state.

Comment: Mr. Seal also suggested changing the reference to silver in 340-40-080 (5) (Groundwater Quality Protection) as it is not proven to be harmful.

Response: This suggestion will be considered during the current water quality standards review process.

Comment: 340-40-010 should quantify changes in temperature, taste, color, turbidity, silt to a reference level at which it is proven to be harmful.

Response: The numeric criteria is in the tables following the narrative rules that Mr. Seal has commented upon.

Comment: 340-40-020 should add above background levels and use surrounding area reference points and seasonal variations.

Response: This is taken somewhat out of context. The rules describe a very detailed process for determining pollutant parameters in following sections.

17. Gary Krahmer
General Manager
Unified Sewerage Agency
155 N. First Avenue, Suite 270
Hillsboro, OR 97124

Mr. Krahmer had several comments. Please see the end of this attachment for his letter and the agency evaluation.



November 1, 1991

SENT BY FACSIMILE 229-6124

Rules Coordinator/MSD Department of Environmental Quality 811 S.W. Sixth Portland, OR 97204

To Whom It May Concern:

The following are the Unified Sewerage Agency's comments on the Department of Environmental Quality Administrative Rules as requested by a DEQ Notice of Periodic Rule Review in September 1991.

We provide both overall comments on your rule package and comments on specific rules.

OVERALL COMMENTS

1) The DEQ has a triennial standards review process for water quality standards as required by law. We will not comment on specific standards here but expect to make comments on standards as they are offered for review by DEQ at other times. An example is the dissolved oxygen standard review that will be dealt with via formation of a special committee.

2) Oregon rules should reflect the latest and most accurate scientific information available and rely to the maximum extent appropriate on Environmental Protection Agency (EPA) technical guidance. In this regard, we feel it is important that deviations from the federal guidance be identified and examined based upon need or clear policy choices by the DEQ. A discussion of the findings should be part of the rule making documentation.

3) We believe that DEQ rules should establish clear and detailed criteria by which economic impact statements should be developed. Too often, very limited information has been included in the Department's economic impact statements accompanying the rule making process. These criteria, and resultant improved economic impact statements, would greatly benefit the decision-makes and the public during their deliberations.

4) Because of often unforeseen cross-media implications of rule making, it would be beneficial to review proposed rules for cross-media impacts as part of the rule making documentation provided to the public and decision-makers.

Phone: 503/648-8621 FAX: 503/640-3525

5) The wastewater treatment plant design criteria, within basins such as the Willamette River basin including the Tualatin River, appears to have been applied as permit limits within NPDES permits which is contrary to their intent as stated in the staff report establishing such criteria. The staff report supporting the adoption of the design criteria for the Willamette basin clearly indicates that the criteria was not intended to be applied as permit limits due to variations expected in biological processes demanding a higher not to exceed number.

6) DEQ should make its rules available in codified form. We purchased a complete set of rules from the Department to aid in this review. That package was not clear on several points. More than one document or amendment is included identified as "DRAFT RULES" or "PROPOSED RULES", so that it cannot be determined whether or not the rules were adopted and are in effect. (See, for example, Chapter 340, Division 25; OAR 340-45-075). Other sections contain added and deleted text. The text of new or revised rules may not indicate that the new provisions are intended to supersede prior rules having the same section numbers. The Department should make additional efforts to maintain its rules in a more clear, consistent format.

SPECIFIC COMMENTS

Issuance of a Permit 340-14-025 (2)

"All comments must be submitted in writing 14 days from the commencement of the public notice period if such comments are to receive consideration prior to final action on the application."

COMMENT: Limiting the review period to fourteen days does not allow sufficient time if the subject and content of the application is of a substantive nature as it would be in most cases. At minimum, a 30 days review period would be more appropriate.

This rule should also include an implementation period. Once a permit is issued and there is no request for a hearing, the permittee should have at minimum, a 60 day implementation period.

Modification of a Permit 340-14-040

"The modification shall become effective 20 days from the date of mailing of such notice unless within that time the permittee requests a hearing before the Commission or its authorized representative."

Modification of a Permit 340-14-040 (Continued)

COMMENT: Implementation of a permit modification could very well entail substantial changes in operations or acquisition of the necessary equipment, software, and etc. At minimum, a 60 day implementation period or effective date would be more realistic and less burdensome on the permittee, unless greater or different time is allowed through a compliance schedule in the permit.

Chapter 340, Division 45, Regulations Pertaining to NPDES and WPCF Permits

Issuance of NPDES Permits 340-45-035 (4)

"A fact sheet shall be prepared for each draft NPDES permit for a major industrial facility and each NPDES general permit."

COMMENT: A fact sheet should be required for any draft NPDES permit and not be limited to the major industrial or general classification. Although the rules specify certain items the fact sheet should contain, it needs to go further than requiring the identification of the "applicable standards and guidelines used as a basis for effluent limits" and "an explanation of any proposed variances." The explanation needs to be in enough detail to show what specific criteria or site specific research was used.

Issuance of NPDES Permits 340-45-035 (5)

" After the public notice has been drafted and the fact sheet and proposed NPDES permit provisions have been prepared by the Department, they will be forwarded to the applicant for review and comment. All comments must be submitted in writing within 14 days after mailing of the proposed materials if such comments are to receive consideration prior to final actin on the application."

COMMENT: Same comment as in Issuance of a Permit 340-14-025 (2).

This rule also should include an implementation period or provision for the Department to specify a later effective date, if the permit contains new or additional conditions for the permittee to meet. Once a permit is issued and there is no request for a hearing, the permittee should have at minimum, a 60 day implementation period.

Chapter 340, Division 41, State-wide Water Quality Management Plan; Beneficial Uses, Policies, Standards, and Treatment Criteria for Oregon

COMMENT: Regarding 340-41-015, and -065. Existing rules require application for a permit and approval by the Department prior to commencement of construction of treatment facilities or discharge of treated waste. Nothing in these rules, however, requires the Department to act upon a complete application within a stated time. The Department should consider adopting a time limit for action upon applications for permits to construct facilities. In this way, applicants can more effectively plan their activities and reasonably anticipate when requested actions or approvals will occur.

Minimum Design Criteria for Treatment and Control of Wastes 340-41-455 (1)(b)(A)(B)

Prescribes the operating limits for BOD and SS during May 1 to October 31 and November 1 to April 30.

COMMENT: Rather than the criteria being specified by calendar dates, the criteria should be based on water quality needs of the receiving waters.

We also suggest that the application of the rule be clarified by amending the rule to state that design criteria are general guidelines for design of treatment facilities and are not intended to substitute for a factual water quality assessment of receiving waters, establishment of carrying capacity for a particular pollutant, adoption of Total Maximum Daily Loads, or NPDES permit parameters.

Department Initiated Modification of an NPDES Permit 340-45-055

"The modification shall become effective 20 days from the date of mailing of such notice unless within that time the permittee requests a hearing before the Commission or its authorized representative or unless the Director determines that significant public interest merits a public hearing or a change in the proposed modification, or if there are written requests for a hearing from ten (10) persons or from any organization representing at least ten persons."

COMMENT: Same comment as in Modification of a Permit 340-14-040.

Other Requirements 340-45-065 (2)

"Monitoring, recording, and reporting procedures used to meet the requirements of a NPDES permit shall conform with the Federal Act and regulations issued pursuant thereto."

Other Requirements 340-45-065 (2) (Continued)

COMMENT: There is still is a great deal of confusion as to appropriate data report formats. The Department should propose an approved form by rule, or otherwise consult with permittees and negotiate the scope of one or more approved forms for NPDES permittees and their specific reporting requirements.

Permit Fees 340-45-070

COMMENT: USA has appealed the annual compliance fees assessed in the Tualatin River Basin in addition to other NPDES annual permit fees. We renew our earlier comments to the Department and the commission that such fees be based only upon activities to determine the permittee's compliance with the NPDES permit, not upon other activities.

Chapter 340, Division 49, Regulations Pertaining to Certification of Wastewater System Operator Personnel

These rules clearly apply to personnel who may work on collection system or treatment system elements. It is not clear whether or not the rules apply to personnel who only perform construction or maintenance work on the collection system. Within Unified Sewerage Agency boundaries, for example, several cities perform extensive maintenance work on the sanitary sewerage collection system. These personnel perform no work on the treatment system. USA staff have consulted with Department staff on this issue, and we agreed that the rules were not clear on this point.

We appreciate the opportunity to comment. If you have questions about our comments, please contact John Jackson, Planning Division Manager, at 648-8644.

Sincerely, wy Coral

Gary F. Krahmer General Manager

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: December 2, 1991

TO: Elana Stampfer

FROM: Barbara Burton, Municipal Wastewater Section Barbara Burton

SUBJECT: Response to Comments - Periodic Rule Review

Response to Unified Sewerage Agency Letter, Dated 11/1/91

I have responded to the comments that seem to apply to my section. Please note that USA has appealed four of their permits, and several of the points raised have also been raised in the permit appeals. The permit appeal process is expected to drag on for another nine months at least.

Page 2, item 5 - use of wastewater treatment plant design criteria as permit limits.

Department response: We disagree that the Department did not intend to use the basin design criteria as permit limits. The intent always has been, and our practice always has been, to include the design criteria in permits as effluent limits.

The wording in the basin standards may be somewhat confusing. In discussing this with senior staff involved in drafting these rules, the intent was to allow the Department, on a case by case basis, to have higher permit limits than the basin standards. At the time the basin standards were adopted, there was some concern that these "technology forcing" limits might not always be achievable without tertiary treatment, and the Department wanted the flexibility to allow somewhat higher limits if a particular design was not as effective as expected. The rule also gave some level of comfort to permit holders, as an indication that the Department would consider higher permit limits if they in fact could not meet the stringent limits. We are not aware of any instances where the Department has relaxed permit limits based on facilities not capable of achieving basin design criteria.

Page 2, paragraphs 3 through 5 - 14 days are insufficient review time.

Department response - The Department typically allows as much time as is necessary to explore permit issues during the permit drafting process, provided the time is productively spent. For example, with USA, preliminary draft permits were sent April 3, 1991, revised draft permits sent May 6, the formal applicant Memo to: Elana Stampfer December 2, 1991 Page 2

review period was extended until May 28, and further comments from USA received up to June 28 of the public comment period. [USA has cited this issue in their permit appeal.]

The Department has a substantial interest in reaching agreement (if possible) prior to permit issuance, as permit appeals are time consuming. We take as much time as is necessary to resolve permit issues. Generally, substantial discussions have already occurred prior to the 14 day comment period.

It should be noted that 90% plus of permits issued get no comments during the applicant review period, and extending the official applicant review period would unnecessarily slow the process down.

Pages 2 and 3 - request for a 60 day effective date rather than 20 day period, when permit is modified.

Department response - The Department now takes into consideration how much time is required to implement the changes. Where necessary, we include a schedule in the permit modification specifically to allow time to implement the changes being required. The Department also responds to requests by permittees to extend the 20 day period.

60 days is a totally arbitrary time frame, and also would not fit a number of circumstances. For example, if a biological study during low flow conditions was included in the permit modification, then 60 days would not be adequate if the modification was issued in the winter. The Department believes the 20 day period is appropriate, provided the demonstrated flexibility to add an implementation schedule continues to be exercised.

Page 3, paragraph 3 and 4 - fact sheets are needed for minor as well as major NPDES permit holders.

Department response - NPDES permits are issued in compliance with both Oregon and federal requirements. While state rules may not require fact sheets for minor NPDES permits, federal rules do require fact sheets and the Department does prepare them for <u>all</u> NPDES permits.

Page 3, last paragraph - an implementation period of at least 60 days should be allowed when permits are issued, for new conditions or requirements.

Department response - See response to similar comment on implementation period for permit modifications.

Memo to: Elana Stampfer December 2, 1991 Page 3

Page 4, paragraph 1 - time limit for Department to complete plan review and issue permits is needed.

Department response - The Department attempts to have the minimum possible turn around time consistent with staffing levels and project complexity. Due to variations in work load, staff turnover, and other factors, the Department could not guarantee a quality review and permit within a specific time frame. We continue to work towards the best service possible.

Page 4, paragraph 2 through 4 - design criteria should be based on water quality limits of the stream, not time of year.

Department response - This issue is currently under appeal. The Department does not agree with USA's position that design standards should be based only on whether or not the discharge would cause in stream water quality standard violations. Rather, design standards are set based on requiring the highest and best practicable treatment, and minimizing the discharge of pollutants to surface waters. The more stringent standards generally required in the summer are based on two factors one, sewage treatment plants can produce better effluent in the warmer months, and two, the receiving stream flows are almost always lower in the summer and the streams generally are more sensitive to pollution impacts in the summer.

Page 4, paragraph 5 - Department-initiated permit modifications should not become effective within 20 days, a longer period should be allowed.

Department response - This was answered earlier.

Pages 4 and 5 - the report format should either be adopted by rule, or negotiated with permittees.

Department response - Regarding major NPDES permit holders, the proper format is specified by EPA, and is a nationally adopted EPA form. Regarding minor permit holders, DEQ has a standard permit form that is mailed to each permittee. Permittees can request a different reporting format (for example to allow submission of a computer printout), and the Department routinely approves these on a case by case basis. In summary, it is hard to see what the objection is.

Page 5, paragraph 2 - Objection is made regarding the Tualatin Basin fees.

Department response - USA has filed suit against the Department regarding this issue. Comment is not appropriate at this time.

Memo to: Elana Stampfer December 2, 1991 Page 4

Page 5, paragraph 3 - rules regarding certification are unclear as to how they apply to people who work on collection systems and not treatment systems.

Department response - Chapter 340, Division 49 requires that each collection system and each treatment system be <u>supervised</u> by a properly certified operator, but not that each worker be certified. It is the responsibility of the collection system or treatment system <u>owner</u> to see that the system is supervised by a properly certified operator. In the example cited by USA, USA is responsible for providing properly certified supervisors for both the treatment systems they own, and the portion of the collection system that they own. The individual cities are responsible for providing properly certified operators for the collection systems owned by the cities. This letter is not clear as to what the point of confusion is.

<u>Response to 10/29/91 Letter From Association of Oregon Sewerage</u> <u>Agencies</u>

The letter makes a number of suggestions regarding changes in the "sludge" rules. EPA will be issuing sweeping changes in the federal rules regarding municipal sludges within the next 12 to 24 months, and the Department will be required to substantially re-write our sludge rules at that time. We are proposing to review all the sludge rules at that time, and will consider other changes such as those proposed by AOSA.

cc: Lydia Taylor Neil Mullane

Department of Environmental Quality

Notice of Periodic Rule Review of Department's Administrative Rules and Solicitation of Public Comment Pursuant to ORS 183.550.

1. In accordance with ORS 183.545 and ORS 183.550, the Oregon Department of Environmental Quality will conduct a review of all of its administrative rules. These rules affect all of the Department's programs, including its regulation of air quality, water quality, noise, solid waste, on-site sewage disposal, hazardous substances and waste, underground storage tanks, environmental cleanup of contaminated sites, and the Department's administrative practices.

The review will determine whether the rules should be continued without change or should be amended or rescinded, consistent with the stated objectives of applicable law.

- 2. In reviewing the rules, the Department will consider, among other things:
 - a. Economic impact of the rule;
 - b. Continued need for the rule;
 - c. Complexity or redundancy of the rule;
 - d. Extent to which the rule overlaps, duplicates or conflicts with other state rules, federal regulations, and local government regulations;
 - Degree to which technology, economic conditions or other factors have changed in the affected subject area;
 - f. Statutory citation or legal basis for the rule;
 - g. The rule's potential for enhancement of job producing enterprises;
 - h. Internal consistency of the rule.

If you would like to comment on any of the Department's adopted rules, address your comments, no later than November 1, 1991, to:

Rules Coordinator/MSD Department of Environmental Quality 811 S.W. Sixth Portland, Oregon 97204

The Department of Environmental Quality staff will review the rules and all of the public comments on the rules in the context of the criteria identified above. The Environmental Quality Commission will consider changes to the rules based on public comments and staff review. Any rulemaking actions resulting from the review will be taken in accordance with the rulemaking requirements in ORS 183.325 through 183.410. Copies of the Department's rules, Oregon Administrative Rules, Chapter 340, can be purchased from Department of Environmental Quality. The current set, with updates through December 1990 costs \$35, including postage and handling. A subscription update service is also available for \$80 a year. To order a set of rules, send a check or money order made out to DEQ, with your name and address, to:

Oregon Administrative Rules, Chapter 340 Department of Environmental Quality Attention: Management Services Division 811 S.W. Sixth Avenue Portland, Oregon 97204

The Department's administrative rules are available for inspection at the offices listed below during regular business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday.

<u>Headquarters Office</u> 811 S.W. Sixth Ave. Portland, Oregon 97204,

<u>Astoria Branch Office</u> Clatsop County Courthouse 749 Commercial Astoria, Oregon 97103

<u>Willamette Valley Region Office</u> 750 Front Street N.E. Suite 120 Salem, Oregon 97310

<u>Coos Bay Branch Office</u> 340 N. Front Street Coos Bay, Oregon 97420 Roseburg Branch Office 1937 W. Harvard Blvd. Roseburg, Oregon 97470

Southwest Region Office 201 W. Main Street Suite 2-D Medford, Oregon 97501

> Central Region Office 2146 N.E. 4th Bend, Oregon 97701

Eastern Region Office 700 S.W. Emigrant #330 Pendleton, Oregon 97801

January 29, 1993 Agenda Item N, Att. D

OREGON ADMINISTRATIVE RULES DEPARTMENT OF ENVIRONMENTAL QUALITY CHAPTER 340 PRINTING AND AMENDMENT INDEX

Division 11 - Rules of Practice and Procedure Last Printing - September, 1992

Division 12 - Enforcement Procedure and Civil Penalties Last Printing - September, 1992

Division 13 - Wilderness, Recreational and Scenic Area Rules Last Printing - October, 1979

Division 14 - Procedures for Issuance, Denial, Modification, and Revocation of Permits Last Printing - September, 1991

Division 15 - Surety Bonds or Other Approved Equivalent Security for Construction, Operation, and Maintenance of Sewage Collection, Treatment or Disposal Facilities Last Printing - June, 1984

Division 16 - Pollution Control Tax Credits Last Printing - September, 1991

Division 17 - Plastics Recycling Tax Credits Last Printing - September, 1991

Division 18 - State Agency Coordination Program Last Printing - September, 1991

Division 20 - Air Pollution Control, General Last Printing - September, 1992 Adopted - October, 1992 (340-20-136) Amended - October, 1992 (340-20-047 & -110)

Division 21 - General Emission Standards for Particulate Matter Last Printing - September, 1992

Division 22 - General Gaseous Emissions Last Printing - September, 1991 Adopted - October, 1992 (340-22-440 thru -640)

Division 23 - Rules for Open Burning Last Printing - November, 1992

Division 24 - Motor Vehicles Visible Emissions Last Printing - January, 1992

Division 25 - Specific Industrial Standards, Construction and Operation of Wigwam Waste Burners Last Printing - January, 1992

Division 26 - Rules for Open Field Burning Last Printing - January, 1992 Division 27 - Air Pollution Emergencies Last Printing - January, 1990 Division 28 - Specific Air Pollution Control Rules for Clackamas, Columbia, Multnomah and Washington Counties Last Printing - October, 1979 Division 29 - Specific Air Pollution Control Rules for Benton, Linn, Marion, Polk and Yamhill Counties Last Printing - June, 1983 Division 30 - Specific Air Pollution Control Rules for the Medford-Ashland Air Quality Maintenance Area and the Grants Pass Urban Growth Area Last Printing - January, 1992 Division 31 - Ambient Air Quality Standards Last Printing - January, 1992 Division 32 - Criteria for Approval of New Air Contaminant Sources in the Portland Metropolitan Special Air Quality Maintenance Area REPEALED - September, 1981 Division 33 - Licensing and Certification Asbestos Requirements Last Printing - September, 1992 Division 34 - Residential Woodheating Last Printing - September, 1992 Division 35 - Noise Control Regulations Last Printing - June, 1983 Division 40 - Groundwater Quality Protection Last Printing - September, 1991 Division 41 - Statewide Water Quality Management Plan: Beneficial Uses, Policies, Standards and Treatment Criteria for Oregon Last Printing - January, 1992 Division 42 - Plant Operation REPEALED - September, 1981 Division 43 - Disposal of Industrial Wastes Last Printing - September, 1992 Division 44 - Construction and Use of Waste Disposal Wells and Other Underground Injection Activities Last Printing - October, 1983 Division 45 - Regulations Pertaining to NPDES and WPCF Permits Last Printing - September, 1992 November 5, 1992 Page 2

Division 46 - Deposit of Motor Vehicle Bodies and Assessories into the Waters of the State

Last Printing - October, 1971

Division 47 - Regulations Pertaining to Oil Spills into Public Waters

Last Printing - October, 1992

Division 48 - Certification of Compliance with Water Quality Requirements and Standards Last Printing - March, 1987

Division 49 - Regulations Pertaining to Certification of Waste Water System Operator Personal Last Printing - January, 1990

Division 50 - Land Application and Disposal of Sewage Treatment Plant Sludge and Sludge Derived Products Including Septage Last Printing - December, 1984

Division 51 - Confined Animal Feeding or Holding Operations Last Printing - September, 1991

Division 52 - Review of Plans and Specifications Last Printing - September, 1991

Division 53 - Development and Management of the Statewide Sewerage Works Construction Grants Priority List Last Printing - September, 1991

Division 54 - State Revolving Fund Program Last Printing - September, 1991

Division 55 - Regulations Pertaining to the Use of reclaimed Water (Treated Effluent) from Sewage Treatment Plants. Last Printing - September, 1991

Division 56 - Instream Water Rights Last Printing - September, 1992

Division 60 - Recycling and Waste Reduction Last Printing - September, 1991

Division 61 - Solid Waste Management in General Last Printing - September, 1991 Amended - April, 1992 (340-71-115, -61-120)

Division 62 REPEALED

Division 63 REPEALED

Division 64 - Waste Tire Program: Waste Tire Storage Site and Waste Tire Carrier Permits Last Printing - September, 1992

Division 71 - On Site Sewage Disposal Last Printing - September, 1991

Division 72 - Fee Schedule Last Printing - December, 1986

Division 73 - Construction Standards Last Printing - December, 1986

Division 81 - State Financial Assistance to Public Agencies for Water Pollution Control Facilities Last Printing - September, 1991

Division 82 - State Financial Assistance to Public Agencies for Pollution Control Facilities for the Disposal of Solid Waste Last Printing - September, 1991

Division 83 - Solid Waste Planning and Recycling Grant Rules Last Printing - September, 1991

Division 100 - Hazardous Waste Management System: General Last Printing - September, 1991 Amended - October, 1992 (340-100-002)

Division 101 - Identification and Listing of Hazardous Waste Last Printing - September, 1992

Division 102 - Standards Applicable to Generators of Hazardous Waste Last Printing - September, 1992

Amended - October, 1992 (340-102-011)

Division 103 - Standards Applicable to Transporters of Hazardous Waste by Air or Water Last Printing - January, 1981

Division 104 - Standards for Owners and Operators of Hazardous Waste Treatment Last Printing - September, 1991

Division 105 - Management Facilities Permits Last Printing - September, 1991

Division 106 - Permitting Procedures Last Printing - September, 1991

Division 107 Reserved

Division 108 - Oil and Hazardous Materials Spills and Releases Last Printing - October, 1987

Division 109 - Management of Pesticide Waste Last Printing - January, 1986

Division 110 - Polychlorinated Biphenyls Last Printing - September, 1991

Division 111 - Used Oil / Road Oiling Last Printing - September, 1991

Division 120 - Additional Sitting and Permitting Requirement for Hazardous Waste and PCB Treatment and Disposal Facilities Last Printing - October, 1987

Division 122 - Hazardous Substance Remedial Action Rules Last Printing - September, 1992

Division 130 - Environmental Hazard Notices Last Printing - June, 1988

Division 135 - Toxic Use Reduction and Hazardous Waste Reduction Last Printing - September, 1991 Amended - October, 1992 (340-135-040 and Appendix A)

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Division 150 - Underground Storage Tank Rules Last Printing - September, 1991

Division 160 - Registration and Licensing Requirements for Underground Storage Tank Services Providers Last Printing - September, 1991

Division 162 - Registration and Licensing Requirements for Underground Storage Tank Soil Matrix Cleanup Service Providers and Supervisors

Last Printing - September, 1991

Division 163 - Registration and Licensing Requirements for Heating Oil Tank Soil Matrix Cleanup Service Providers and Supervisors Last Printing - September, 1991

Division 170 - Underground Storage Tank Reimbursement Grant Program Last Printing - September, 1992

Division 172 - Underground Storage Tank Financial Assistance Program Last Printing - September, 1992

Division 174 - Underground Storage Tank Insurance Copayment Program Last Printing - September, 1992

Division 175 - Underground Storage Tank Grant Program Last Printing - September, 1992

Division 176 - Underground Storage Tank Loan Guarantee Last Printing - September, 1992

Division 178 - Underground Storage Tank Reduced Interest Rate Loans Last Printing - September, 1992

Division 180 - Underground Storage Tank Loan Guarantee and Interest Rate Subsidy Program Last Printing - September, 1992