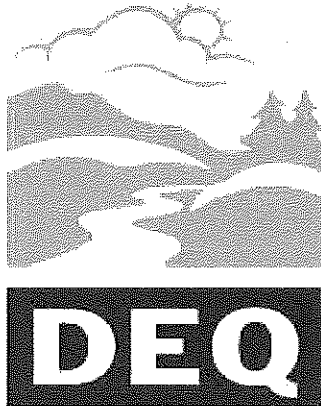


Part 1 of 2
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 12/04/1990



State of Oregon
**Department of
Environmental
Quality**

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State of Oregon
ENVIRONMENTAL QUALITY COMMISSION

A G E N D A

WORK SESSION -- December 13, 1990

DEQ Conference Room 3a
811 S. W. 6th Avenue
Portland, Oregon

- 1:00 p.m. - 1. Gold Mining: Discussion of Options for Environmental Regulation
- 3:00 p.m. - O. Status Report on the Establishment of Total Maximum Daily Loads (TMDL's) (Note: Moved from the Friday Agenda.)
- 4:30 p.m. - 2. Discussion of Ballot Measure 5 and DEQ

NOTE: The purpose of the work session is to provide an opportunity for informal discussion of the above items. The Commission will not be making decisions at the work session.

REGULAR MEETING -- December 14, 1990

DEQ Conference Room 3a
811 S. W. 6th Avenue
Portland, Oregon
8:30 a.m.

Consent Items

NOTE: These are routine items that may be acted upon without public discussion. If any item is of special interest to the Commission or sufficient need for public comment is indicated, the Chairman may hold any item over for discussion. When a rulemaking hearing is authorized, a public hearing will be scheduled and held to receive public comments. Following the hearing, the item will be returned to the Commission for consideration and final adoption of rules. When rules are proposed for final adoption as Consent Items, a hearing has been held, no significant issues were raised, and no significant changes are proposed to the original draft that was authorized for hearing.

- A. Approval of Minutes of the October 11, 1990 Special Work Session and the November 1-2, 1990 Regular EQC Work Session and Meeting
- B. Approval of Tax Credit Applications

- C. Authorization for Rulemaking Hearing on Amendments and Corrections to the Hazardous Waste Rules
- D. Authorization for Rulemaking Hearing on Requirements for Stage II Vapor Recovery at Gasoline Stations
- E. Authorization for Rulemaking Hearing on Minimum Design and Performance Standards for Environmental Control of Gold Mining Operations
- F. Proposed Adoption of Portland Central Business District Parking Offset Rule
- G. Proposed Adoption of Amendments to Rules on Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil
- H. Proposed Adoption of Drug Lab Cleanup Rules
- I. Proposed Adoption of Rule Amendments to the Pollution Control Bond Fund Rules

Rule Adoptions

NOTE: Hearings have already been held on these 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.

- J. ~~Proposed Reconsideration of November 2, 1990 Action to Adopt Rules to Implement Required Out-of-State Surcharge for Solid Waste~~
- K. ~~Tape 1 side B (325-545)~~ Proposed Adoption of Rules Modifying OAR 340-41-270 Special Policies and Guidelines for the Mid Coast Basin and OAR 340-71-460(7) Moratorium Areas for On-Site Sewage Disposal Systems for the Clear Lake Area Near Florence

Action Items

Special Item: Clarification of Authority of Third Parties to Request Hearings on Pulp and Paper Mill NPDES Permits

Information Items

- L. Status Report on Proposed PM₁₀ Control Strategy for Medford
- M. Information Report on the Requirement that Soil Contaminated with Hazardous Substances be Disposed of Only in Landfills Employing Best Management Practices

- N. Columbia River Water Quality Study Workplan: Update
- ~~O. Status Report on the Establishment of Total Maximum Daily Loads (TMDLs)~~
(Note: Moved to the Thursday Work Session.)
- P. Discussion of Draft Rules Establishing a Third Party Appeal Process
- Q. Commission Member Reports: (Oral Reports)
 - Governor's Watershed Enhancement Board
- R. Director's Report (Oral Report)
- S. Legislative Update (Oral Report)

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.

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The next Commission meeting will be Friday, February 1, 1991, at DEQ offices in Portland, Oregon.

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.

Revised December 13, 1990

Approved _____
Approved with corrections _____
Corrections made _____

MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EQC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Two Hundred and Eighth Meeting
November 1-2, 1990

Work Session

The Environmental Quality Commission (Commission or EQC) Work Session was convened on Thursday, November 1, 1990, at about 1:05 p.m. in Conference Room 3a of the offices of the Department of Environmental Quality, 811 S. W. 6th Avenue, in Portland, Oregon. Commission members present were: Chairman Bill Hutchison and Commissioners Bill Wessinger, Carol Whipple and Henry Lorenzen. Also present were Director Fred Hansen of the Department of Environmental Quality (Department or DEQ) and Department staff.

Item 1: Discussion of Draft EPA Environmental Education Program

Carolyn Young described current DEQ activities to disseminate environmental education information and materials to classroom teachers and groups. A copy of the position description for the Education Coordinator position the Department is seeking in the 1991-93 budget request was distributed to the Commission. Carolyn advised that Oregon does not have a state mandated requirement for environmental education in public schools (Washington and other nearby states do have such a requirement). She also noted that ample information is available to teachers, and that what is needed is a clearinghouse for available information and adequate teacher training. Environmental education can be integrated into existing subjects without the need to add to the already overloaded set of requirements. An example would be to add environmental terms to spelling lists.

The Commission expressed support for the importance of environmental education and the Education Coordinator position and urged the Department to begin recruiting for the position so that it could be filled and functioning as soon as legislative approval is obtained. The Commission also expressed support for sending a letter from the Commission to the State School Superintendent urging increased priority for environmental education and consideration for making an integrated approach a state requirement.

Item 2: Operating Plans: First Quarter Report and Discussion

The Department had provided the Commission with a copy of the Operating Plan for each Division with first quarter status noted in the last column.

Director Hansen noted that the current operating plan was developed to reflect current priorities of the Department pursuant to the budget approved by the 1989 legislature and the requirements of the Environmental Protection Agency (EPA) as reflected in the State/EPA agreement. The priority objectives and significant tasks identified can be related to the Strategic Plan, but were not developed straight from the Strategic Plan. (The budget request for the 1991-93 biennium that is presently being reviewed by the Executive Department was specifically developed to reflect Strategic Plan priorities, and the operating plan that will be developed following legislative action on the Agency budget will more directly reflect the Strategic Plan.) Director Hansen asked the Commission to discuss whether the format and level of detail of the operating plan was helpful to the Commission in tracking Department progress in achieving goals. He noted that the level of detail is helpful to him in tracking Department progress, but may contain more detail than the Commission wants to see.

Commissioner Whipple observed that the quarterly status indicates that a surprisingly large percentage of the tasks are marked as completed. Director Hansen noted that since the focus of this operating plan is the current biennium, a high priority was given to early completion of the tasks assigned by the 1989 legislature. Commissioner Wessinger noted that the TMDL process was a high priority and involved a significant workload, and that he was unable to identify where it was in the operating plan. Lydia Taylor, Water Quality Division Administrator, advised that some tasks related to TMDL development were included in the operating plan for the Laboratory Division and the Water Quality Division, but the plan could be revised to better reflect this work element. Commissioner Wessinger also had a question on the Columbia and Willamette studies, noting that the status of those high visibility, high priority items were what he wanted to see in a report. Director Hansen noted that the Columbia Study is included as item E in the Water Quality Division Operating plan, and that the nature of a Willamette study has evolved substantially since the operating plan was prepared. Commissioner Whipple asked if objective E in the Air Quality Division plan related to product labeling would be revised to include more tasks if Ballot Measure 6 passed. Director Hansen and Tom Bispham, Acting Air Quality Division Administrator, responded that Objective E grew out of indoor air quality legislation that was passed by the last session but left unfunded. The intent was to secure funding to be able to explore labeling of products to give consumers a chance to be aware of how they may affect indoor air quality (volatile emissions from carpet glues, for example).

Chairman Hutchison summarized that the Department is in the transition period between the old biennium and a new one, and that the operating plan will be more reflective of the strategic plan over time. He suggested that the strategic plan be revisited and updated after the legislative session.

Following further discussion, the Commission asked the Department to come back in March with ideas on how to change the structure of the Operating Plan to better integrate Pollution Prevention and the Cross-Media emphasis on pollution control more clearly into each of the

Division Operating Plans. The intent would be to get ready for the major operating plan revision that will occur after the 1991 legislative session.

Item 3: Out-of-State Waste Fee: Discussion

Chairman Hutchison advised that the issue of the surcharge on out-of-state solid waste had been structured to allow the Commission the opportunity to receive information and ask questions the first day and then reflect a little before the decision making process at the Friday meeting. He noted that the mission of the Commission was not to debate the legislative policy of whether there should be a surcharge, but rather to discuss what the surcharge should reasonably be.

Director Hansen noted that letters received on the issue from two members of the Oregon Legislature were being distributed to the Commission. He also noted that Attachment J of the Agenda Item G was all of the written comments received during the public hearing. The staff then distributed copies of additional comments that were received after the staff report was prepared relating to the economic consultant's report.

Senator Dick Springer, Co-Chair of the Environment Committee, gave a brief background description of the legislation requiring the Commission to establish an out-of-state solid waste surcharge. He urged support of a fee in the range of \$2.50 to \$3.50. He indicated that the legislature could, if asked to reconsider, impose an even higher fee. He summarized that the legislature asked the Commission and Department to do its best in setting the fee, and that the Department has done that. Senator Springer stated that the process had been fair as contemplated by the legislature. He urged the Commission to approve the Department recommendation.

Representative Cease, Co-Chair of the Environment Committee and a member of the Solid Waste Regional Policy Commission, urged the Commission to ignore the lobbying and adopt a reasonable fee and submit it to the Emergency Board. He stated that the Department recommendation seemed reasonable. He had heard the arguments of Waste Management that \$3.00 was uneconomical, but was not persuaded and did not believe the arguments would persuade most people who want no out-of-state waste disposed of in Oregon. He summarized by stating that if out-of-state waste is to come into Oregon, it should carry its full costs. The problem is to determine what those costs are, and to set the rate and keep it stable for several years.

Larry Edelman, representing the Department of Justice, gave the Commission a brief overview of the Constitutional legal principles that apply to the out-of-state waste fee matter. He indicated that the Commerce Clause says that the Congress has the power to regulate commerce in the United States, but that it does not say what states can or cannot do. Over

the years, the Supreme Court has interpreted the Commerce Clause to place certain restrictions on the states to assure they are not engaging in "protectionism" or "economic protectionism." If there is blatant discrimination against out-of-state interests with no rationale, the court will generally say that the Commerce Clause is violated. If however, there is a reasonable state interest in treating in-state and out-of-state interests differently, the court will then apply a balancing test. The Justice Department would argue that the statute does not violate the Commerce Clause since no fee is specified. Therefore, the question is what is the fee, and once determined, is the fee based on a reasonable basis of the additional cost to the state or its political subdivisions for the importation of out-of-state waste. Some argue that the Commerce Clause would prohibit any difference in fees for in-state and out-of-state waste. There have been no cases directly addressing this point to date. Several states have imposed differential fees, and litigation is pending on the issue. The Justice Department position is that the Court will, based on precedents in the constitutional privileges and immunities arena, uphold the right of a state to impose differential fees based on a rational determination of the basis for the difference.

Commissioner Lorenzen asked for clarification of what the legislature meant by the term "cost". Mr. Edelman stated that there was not legislative history on the issue. However, they believe the word can be interpreted broadly, and include more than direct out-of-pocket costs.

Steve Greenwood, manager of the Solid Waste Section of the Department, briefly reviewed the significant points in the staff report. He noted that the legislation requires the surcharge to be in place by January 1, 1991. He indicated that 11 states have similar laws, and that none of the others are required to base their surcharge on the costs to the state and its political subdivisions. He reviewed the process used to develop the proposed fee and noted that three hearings were held on a potential fee ranging from \$1.50 to \$3.50. An economic consultant (National Economic Research Associates or NERA) was hired to review the Department's methodology. The Department extended public comment to allow review of the Consultant's report, and prepared a revised analysis based upon the results. Steve then reviewed the assumptions and the nine cost categories used by the Department. He passed out a table summarizing the results which identified a range of \$1.76-\$4.13 with a recommended fee of \$2.98 which was rounded to \$3.00. In discussion, Steve indicated an intent to focus on three of the nine cost categories where there were ranges, and the reason for the Department's recommendation of a single value. The three were: (3) tax credits and other public subsidies, (5) increased environmental liability, and (7) lost tourism or business development revenues due to stigma of accepting out-of-state waste. In the interests of time and to allow invited panel members to speak, this discussion was set aside until later.

Steve Greenwood then called upon the invited panel members to present their comments.

Mark Bergman, representing NERA, referred the Commission to a table (handed out) summarizing his initial comments on the methodology used by the Department. He noted that all but one of the categories were legitimate costs, and that he had questioned the tax credits item and identified other concerns. He noted he had since reviewed the October report and concluded that the Department had accepted many of his recommendations and moved closer to his view of a correct procedure. However he still had some concerns with respect to Tax Credits, Unfunded Liability, and Other (image, infrastructure, nuisance). Specifically, he noted that there can be benefits to out-of-state waste, and the benefits should be accounted for in the tax credits category, and in-state waste generators could leave the state, and leave an unfunded liability behind.

John Frewing, Chair of the Solid Waste Advisory Committee, urged that the fee should be based on costs, since there is no mention of benefits in the statute. He noted that the Department did a state-of-the-art job on a cheap budget. He also noted that the selection of NERA as a consultant was good.

John DiLorenzo, representing Tidewater Barge Lines, stated his belief that the proposed \$3.00 surcharge on out-of-state waste is discriminatory when compared to the \$0.50 charge for in-state waste and would therefore violate the Commerce Clause of the Constitution. He urged the Commission to request a formal written opinion from the Attorney General on the matter. He went on to question the basis for the identified costs in most of the categories. Major concerns were that benefits were not considered and a net cost arrived at, that costs may be double counted, that the Economic Development Department does not agree with the assumptions of impacts on tourism, and that assumptions regarding the ability to expand and changes in the law are incorrect.

Doris Bjorn, representing Oregon Waste Systems, Inc., recommended that the Commission reject the high surcharge and consider a more reasonable charge based on actual costs. She questioned the regional policy aspects of the proposal, and stated that a surcharge of the size recommended would discourage importation. She stated that the Department has interpreted the statute too broadly and has gone beyond the intended "real and actual" costs. She also stated that out-of-state waste should not pay for Oregon recycling and household hazardous waste reduction. She questioned the failure to consider offsetting benefits, and expressed the belief that the proposal violated the Commerce Clause of the Constitution.

Judge Laura Pryor, Gilliam County, expressed concern that decisions that affect her area are being made piecemeal. She noted that 50% of the solid waste in the state goes to the regional solid waste landfill in Gilliam County. She also noted that 76% of the Hazardous Waste entering the regional hazardous waste facility in her county was from the State of Washington. She wondered why people were getting excited over solid waste. She indicated she did not oppose a fee, but the issue was how much the fee should be. She also urged that collected fees be placed in escrow until EPA requirements are known.

Bruce Rettig, Economist from Oregon State University, noted that it may be appropriate to consider payroll as an add-back benefit.

The Commission then asked questions of the invited guests and staff. In response to a question from Commissioner Lorenzen regarding increased liability and the analytical approaches of expected value analysis and risk aversion, Mr. Rettig and Mr. Berkman responded that one can look at a range or a worst-case approach, and that the choice is a value judgement. Director Hansen noted that the Department did not select the worst case, rather it chose to focus on a serious case. In response to questions from Chairman Hutchison, Mr. Berkman stated that different landfills pose different risks, and the Department looked at the range, and chose to apply one rate to all. However, a different approach could also be used. With respect to cost, Mr. Berkman noted that he does not interpret the law, but usually costs are considered viewed as net costs. In response to a question from Commissioner Whipple, Mr. DiLorenzo stated that the proposed fee subsidizes in-state at the expense of out-of-state, and thus violates the Constitution. He noted that his view had been shared with staff and that a difference of opinion exists. He further stated his opinion that a formal opinion from the Attorney General would probably not support the staff position. Larry Edelman stated that his office was confident that the staff proposal was reasonable and that a formal opinion was not needed.

In response to a question from Commissioner Whipple, Ms. Bjorn stated that Oregon Waste Systems supports paying all known and reasonable costs. Commissioner Lorenzen asked Mr. DiLorenzo for his view on what surcharge fee would comply with the statute. Mr. DiLorenzo replied that \$0.50 would be all right, but he hadn't looked higher. Director Hansen noted that the statute refers to costs, and that it does not link costs incurred and expenditures currently made.

Chairman Hutchison thanked the panel members for their participation and input.

Item 4: Oil Spill Planning: Background and Update

This agenda item provided an overview of current oil spill planning activities and discussion of upcoming issues. The Department is currently implementing oil spill initiatives mandated by the 1989 legislature. These include (1) developing oil and hazardous materials spill contingency plans for the Oregon coast, the Columbia River and the Willamette River to Oregon City, and (2) developing rules to insure that vessels over 300 gross tons which transport bulk oil in waters of the state establish evidence of financial assurance in the amount of \$1 million or \$150/gross ton, whichever is greater. An advisory committee is assisting with each project. With respect to the contingency plan development, sensitive resources are being mapped on Geographic Information System (GIS) computer maps, and protection strategies for sensitive resources are being developed. Project completion is

scheduled for July 1991. The rule development for financial assurance is on hold pending an Attorney General's opinion on the financial responsibility coverage of the new Federal Oil Pollution Act of 1990.

Oregon has been participating on the States/British Columbia Oil Spill Task Force which investigated ways to prevent oil spills, reviewed oil spill response procedures, assessed mechanisms for handling compensation claims, and developed a coordinated inter-state/province contingency plan. The final report of the task force was provided to the Commission.

The Work Session was adjourned at about 5:00 p.m.

Regular Meeting

The Environmental Quality Commission regular meeting was convened at about 8:40 a.m. on Friday, November, 2, 1990, in Conference Room 3a of the Department of Environmental Quality Offices at 811 S. W. 6th Avenue in Portland, Oregon. Commission members present were: Chairman Bill Hutchison, Vice Chairman Emery Castle, and Commissioners Bill Wessinger, Carol Whipple, and Henry Lorenzen. Also present were Michael Huston of the Attorney General's Office, Director Fred Hansen of the Department of Environmental Quality and Department staff.

NOTE: Staff reports presented at this meeting, which contain the Department's recommendations, are on file in the Office of the Director, Department of Environmental Quality, 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.

Consent Items

The following items were listed on the agenda as Consent Items:

A-1. Minutes of the September 20-21, 1990 Meeting

A draft of the minutes was circulated to the Commission prior to the meeting. At the meeting, the Department presented a list containing corrections for pages 15, 21, and 23 of the circulated draft.

A-2. Approval of Deputy Director Position

This item presented background information and a draft position description for a Deputy Director position for DEQ and recommended that the Commission approve establishment of a Deputy Director position for the agency.

B. Approval of Tax Credit Applications

The Department recommended that approval be granted on Pollution Control Facility Tax Credit applications as follows:

TC-2875	Norm Poole Oil, Inc.	Installation of epoxy lining in three steel underground storage tanks, sacrificial anode cathodic protection, fiberglass piping, spill containment basins overfill vent valves, tank monitor and line leak detectors.
TC-2876	Norm Poole Oil, Inc.	Installation of three STI-P3 underground storage tanks and fiberglass piping, epoxy lining and sacrificial anode cathodic protection on a fourth existing tank, spill containment basins, overfill vent valves, tank monitor and line leak detectors.
TC-3224	Trapp's Eastside Veltex	Installation of impressed current cathodic protection on three steel underground storage tanks and piping, spill containment basins, overfill float valves, tank monitor, monitoring wells and pump check valves.
TC-3234	Garry LaPoint	Installation of three double wall fiberglass underground storage tanks and double wall fiberglass piping, spill containment basins, overfill vent valves, tank monitor, line leak detector, Stage I vapor recovery and monitoring wells.
TC-3236	Arrow Transportation Co.	Installation of one EBW spill containment basin.
TC-3237	Graham Oil Company	Installation of four STI-P3 underground storage tanks and fiberglass piping, spill containment basins, line leak detectors, monitoring wells and underground preparation of the site for a tank monitoring system.
TC-3238	Cal's Service Center	Installation of a tank monitor system, spill containment basins and line leak detectors on three underground storage tanks.

TC-3239 D & J Texaco Installation of four STI-P3 underground storage tanks and fiberglass piping, spill containment basins, turbine leak detectors and vapor monitoring wells.

The Department also recommended that Certificate number 2224 be transferred from Hyster Company to Pape' Brothers, Inc.

By supplemental memo, the Department forwarded a proposed methodology for evaluating the extent of tax credit eligibility (percent allocable) of farm tractors used in connection with alternatives to open field burning. The proposed methodology was applied to one of eight applications deferred at the August Commission meeting as follows:

TC-3262 Kirk Century Farms, Inc. Used John Deer 2950 Tractor with a John Deere 260 loader

Based on the proposed methodology, the Department recommended that 92% of the cost of the tractor be allocated to pollution control. The Department noted that the Department of Agriculture did not concur with the recommendation and supported approval with 100% allocable to pollution control.

C. Authorization for Rulemaking Hearing: Ranking Rules for Inventory of Hazardous Substance Sites

This agenda item requested Commission approval to proceed to a rulemaking hearing on proposed rules which would establish procedures for ranking facilities on the inventory of hazardous substance sites based on short and long term threats they pose to public health and the environment. The proposed rules were presented in Attachment A of the staff report.

D. Authorization for Rulemaking Hearing: Proposed Amendments to Water Quality Standards as Part of the Triennial Review Required by the Clean Water Act

This agenda item requests Commission approval to proceed to rulemaking hearings on proposed amendments to water quality standards for surface waters. The proposed amendments were presented in Attachment A of the staff report. The proposed amendments are an outcome of the Triennial Review required by the Federal Clean Water Act and are intended to assure that the standards are updated based on the most recent scientific information to more fully protect water quality and beneficial uses.

At the meeting, the Department provided additional written material showing two corrections to the proposed rules in Attachment A (on pages A3-7 and A4-2) and to Issue Papers #3 and #5 of Attachment E.

The Commission removed item B from the consent agenda by consensus to allow for public testimony and discussion.

Action on Consent Items A-1, A-2, C, and D:

Before taking action on the Consent Items, the Commission heard brief comments from Mary Nolan, Director of Environmental Services for the City of Portland. Ms. Nolan thanked the Department for aiding in the effort to clarify the wording of the proposed rule changes in Agenda Item D and expressed the support of the City for the rule amendments as presented. Director Hansen noted for the record that a letter from Floyd Collins, representing the Association of Oregon Sewerage Agencies, also supported the Department recommendation.

It was MOVED by Commissioner Lorenzen that the Department recommendations on Agenda Items A-1 with corrections, A-2, C, and D with corrections, be approved. The motion was seconded by Commissioner Castle and unanimously approved.

Consideration of Consent Item B:

Director Hansen introduced the discussion by noting that the Commission had asked the Department to go back and develop a consistent methodology for determining the percent of cost allocable to pollution control for farm tractors used in alternatives to open field burning. A policy issue regarding the application of the methodology is being raised in the one tractor application being presented.

Roberta Young, of the Management Services Division, briefly explained the methodology that had been developed. The Department of Agriculture and Oregon State University had assisted in developing the methodology. The methodology assumes a basic annual average usage of 450 hours for a tractor. Tractor usage for the alternative to field burning is calculated using values from a table establishing acres per hour for each implement used in the alternative practice based on tractor horsepower and the number of acres processed. The percentage allocable is then derived by comparing to the annual average of 450 hours for a tractor. One application that was deferred at the previous meeting was ready for consideration under the proposed new methodology. The result was a recommendation of 92% of the cost allocable to pollution control.

Mike Kirk, representing Kirk Century Farms, appeared to urge the Commission to approve his application for a tractor with 100% of the cost allocable to pollution control. He stated that the tractor claimed in the application had been purchased to power other equipment

- N. Columbia River Water Quality Study Workplan: Update
- ~~Q. Status Report on the Establishment of Total Maximum Daily Loads (TMDLs)~~
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The next Commission meeting will be Friday, February 1, 1991, at DEQ offices in Portland, Oregon.

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Revised December 13, 1990

purchased for accomplishing the purpose of reducing open field burning. He had both smaller and larger tractors for other farm purposes. The additional tractor was necessary to accomplish the alternatives to open field burning before the rains.

Jim Britton, representing the Department of Agriculture, supported Mr. Kirk's statement and noted the concern of the Department of Agriculture for the small growers who would be disadvantaged by the approach being used to determine the percent allocable to pollution control. He noted that the 450 hour figure was selected from a range of 400-500 hours average for valley operations. He suggested that a sliding scale would be more appropriate than the average annual use figure of 450 hours for a farm tractor.

Commissioner Lorenzen asked Mr. Britton how he would proposed to handle a couple of hypothetical situations where a grower purchased a very large expensive tractor because that was what he wanted, but, used it inefficiently or under the formula only used it 40 hours in the alternative practice, and further demonstrated that was the sole use of the tractor. Thus the tractor would be inefficiently used, and remain unused 90% or more of the time. Mr. Britton responded that his suggested approach does not deal with that kind of situation. Commissioner Lorenzen indicated that perhaps a reasonableness test needed to be applied. Mr. Britton further suggested that perhaps the number of hours could be related to the number of acres farmed.

Commissioner Wessinger asked if the 450 hours average annual use was appropriate to be applied to all the farmers in the valley. He suggested that there are judgement calls on each individual case that need to be made. Director Hansen suggested that there are two approaches that can be used: the first is to use the methodology that has been developed and stick with it, and the second is to also allow arguments on the merits alone that special circumstances justify a different result.

Commissioner Castle asked about the general approach to handling situations where an applicant may spend excessive funds on a pollution control facility for image or other reasons not related to pollution control, and then claim full costs for tax credit. Director Hansen noted that generally, the applicant decides the level of investment and the actual cost is certified. Recovery of benefit from the more expensive facility can result in a reduction in the percent allocable, however. Harold Sawyer, of the Department staff, noted that one of the other factors that can be considered in determining the percent allocable is "other methods for achieving the same pollution control objective." This factor would allow the determination of the least cost method of controlling the pollution, and using that to establish the percent of actual cost that is allocable. This approach is difficult to apply in most cases because of lack of information. However, it does provide a way of dealing with a situation such as the examples cited.

Commissioner Whipple indicated that the Department has made a good step with the formula before the Commission now. There may be arguments for claiming 100% for pollution control, but in light of giving state tax credits and the multiple use potential of tractors, the methodology before the Commission seems to speak to the issue well, and the result appears very reasonable. Commissioner Castle also noted that he felt the methodology was reasonable.

Commissioner Castle asked if the Department considered establishing an allowable dollar per acre cost for straw removal as an alternative. Commissioner Lorenzen indicated the statute may not allow that because it requires the actual cost of the equipment and the percent allocable. Commissioner Castle then asked if the Commission would be in conformance with the statute if it certified less than 100% when the applicant claimed the full 100%. Michael Huston advised that the Commission would avoid the pitfall suggested in Commissioner Castle's question if the formula was not absolute and allowed some opportunity for case-by-case demonstration for the full 100%.

Chairman Hutchison summarized that the proposed methodology would describe how the Commission consider usage, but would not preclude consideration of other factors in arriving at a final determination on percent allocable. Commissioner Lorenzen stated that the staff had done a terrific job in developing the approach. He acknowledged that incremental refinements could perhaps be made, but he was comfortable that the proposed approach was as close as the Commission could get.

It was MOVED by Commissioner Lorenzen that the Tax Credit Applications in Agenda Item B be approved as recommended by the Department. The motion was seconded by Commissioner Whipple and unanimously approved.

Director Hansen noted for the record that the underground storage tank tax credit certificates were dated October 31, 1990 based on the fiscal year of the applicants. The Attorney General's office has advised that it is possible for the Commission to approve the applications as of October 31, 1990, as recommended so as to not disadvantage the applicants.

Rule Adoptions

E. Proposed Adoption of Rules for PM₁₀ Control Strategy for Grants Pass

This agenda item recommended Commission adoption of a revision of the State Implementation Plan rule (OAR 340-20-047) to include the PM₁₀ air pollution control strategy for the Grants Pass Nonattainment Area as presented in Attachment A of the staff report.

It was MOVED by Commissioner Wessinger that the Department recommendation be approved. The motion was seconded by Commissioner Castle and unanimously approved.

F. Proposed Adoption of Rule Amendments to Delegate Approval of Financial Assistance for Waste Tire Pile Cleanup to the Director

This agenda item recommended Commission adoption of rule amendments to delegate approval of requests for financial assistance for waste tire pile cleanup to the Director. The proposed rule amendments also convert earlier guidelines for determining the amount of waste tire pile cleanup financial assistance available to a local government into rule form, and make other housekeeping changes. The proposed rules were presented in Attachment A of the staff report.

At Chairman Hutchison's suggestion, the Department presented an amendment on page A-11 of the proposed rule as follows:

340-64-150 (1) The Department may use cleanup funds in the Waste Tire Recycling Account, subject to the priorities set in 340-64-090, to:

It was MOVED by Commissioner Castle that the Department recommendation be approved with the amendment as noted above. The motion was seconded by Commissioner Wessinger and unanimously approved.

G. Proposed Adoption of Rules to Implement Required Out-of-State Waste Surcharge for Solid Waste

This agenda item requested Commission adoption of a proposed rule to establish a surcharge on out-of-state solid waste disposed of in Oregon. The 1989 Legislature required the Commission to establish the surcharge by rule to be effective after January 1, 1991. The proposed rule was contained in Attachment A of the staff report. This matter was discussed at the work session on the previous day.

Steve Greenwood presented the Department's recommendation for a \$3.00 per ton surcharge on out-of-state solid waste. He spoke on four points raised during the panel discussion at the Commission work session the day before:

- An extra burden on statewide planning and solid waste management is presented by out-of-state waste and there is a clear relationship between the amount of waste and the management costs.

- There were two errors in the Department's calculations that, when corrected, raise the expected cost by \$.30 per ton and raise the recommended cost by \$.08 per ton.
- The methodology used to calculate the costs of lost tourism and business development due to the stigma of accepting out-of-state waste was discussed. Steve cited studies that support the conclusion of a negative image due to receiving out of state waste, and also cited an article in a magazine that portrayed Oregon as the garbage dump for Seattle as an example of the image associated with receiving out-of-state waste.
- The optimistic assumptions about the future presented by some panelists of the previous day were discussed, and the Department continued to recommend that the Commission assume less optimistic projections.

The Commission raised questions about whether "worst case" or "expected case" assumptions should be used to determine environmental liability costs. Commissioner Lorenzen asked why costs of recycling programs and Household hazardous waste programs in Oregon should be paid for by out-of-state waste generators. Several members of the Commission praised the work done by Department staff on this issue, and stated that the analysis of costs had been very thorough.

Commissioner Lorenzen questioned whether all or part of the \$0.50/ton cost in Category 1 should be included. Commissioner Castle stated that he was unable to justify two of the components of the Category 1 fee.

Following further discussion, it was **MOVED** by Commissioner Lorenzen that the Department recommendation be approved with a reduction of 33 cents in the category of statewide activities for solid waste management (Category 1), and an increase of 8 cents per ton in the category of tax credits (Category 3), for a total surcharge rounded to \$2.75 per ton. The motion was seconded by Commissioner Castle and unanimously approved.

Steve Greenwood then suggested that a revision in the rule language may be appropriate to reflect the decision of the Commission. He recommended that the wording beginning at the top of page A-7 be revised as follows:

"... shall submit to the Department of Environmental Quality a per-ton surcharge of \$2.75 per ton. ~~{consisting of the amount of the per ton fee as specified in Section 5 of this rule, plus \$2.50.}~~ This surcharge shall apply"

It was **MOVED** by Commissioner Wessinger that the language in the proposed rule be revised as suggested by Mr. Greenwood. The motion was seconded by Commissioner Castle and unanimously approved.

Fred Hansen asked the Commission if it intended to review the per-ton surcharge earlier than the minimum four years stated in the proposed rule, should there be any legislative changes in the per-ton fee on domestic solid waste. Chairman Hutchison stated that he felt the four year review time would be sufficient, and the Commission need not review before then.

H. Proposed Adoption of Rule Establishing Bear Creek TMDL Time Schedule

This agenda item proposed Commission adoption of an amendment to the Bear Creek TMDL Rule (OAR 340-41-385) to delay the rule deadlines for the Department to distribute load allocations and waste load allocations and for the regulated entities to submit program plans. The Department was delayed in its actions to distribute the load and waste load allocations because of unanticipated complexity of the Bear Creek situation. This in turn necessitated a delay for response by the regulated entities. The December 1994 deadline for final compliance was not proposed to be changed. The proposed rule amendment was presented in Attachment A of the staff report.

Commissioner Wessinger noted that schedules were slipping and asked about problems getting all of the TMDL work done. Lydia Taylor, Water Quality Division Administrator, responded that the Department was still on a learning curve, and it is apparent that further prioritization and adjustments will be needed. The Department will be providing a further discussion and will be seeking Commission guidance on this issue at the next work session.

It was **MOVED** by Commissioner Wessinger that the Department recommendation be approved. The motion was seconded by Commissioner Castle and unanimously approved.

Informational Items

I. Wood Heating Alliance Presentation on Klamath Falls Study

Mr. Jim Hermann, representing the Wood Heating Alliance, thanked the Commission for the opportunity to make a presentation on their Klamath Falls Study. Mr. Hermann indicated that the study was constructed in an attempt to more clearly identify the potential benefits for 1990 EPA certified wood stoves in being part of the air quality solution in Oregon. He introduced Mr. Gary Hazard, Woodstove Technical Committee Chairman for the National Trade Association and Vice President of N.H.C. Incorporated (Hearthstone Corporation) in Morrisville, Vermont. Mr. Hazard presented an overview of the Klamath Falls study to the Commission. In summary, Mr. Hazard concluded that the new generation stoves pollute less, and that an appropriate strategy would be to provide incentives for people to replace all of the old stoves.

Chairman Hutchison thanked Mr. Hermann and Mr. Hazard for their presentation.

J. Groundwater Management Plan for Malheur County: Background and Update

This agenda item provided the Commission with background information on the development and contents of a draft groundwater management action plan for the Northern Malheur County Groundwater Management Area. The Commission had been provided a copy of the draft plan and background material prior to the meeting. Amy Patton, Manager of the Department's Ground Water Section, and Gregg Pettit of the Groundwater Section, briefly presented a summary report and responded to questions.

In August 1989, the Department declared the groundwater management area based on available evidence of nitrate contamination. Pursuant to 1989 legislation, the Strategic Water Management Group appointed an 18 member local groundwater management committee and designated DEQ as the lead agency for the development of a groundwater management area action plan. The committee met regularly through August 1990, and unanimously recommended the draft plan for public review and comment. The Draft Plan provided background information on the area and the problem, and described a voluntary approach, using individual farm management plans, to implement customized best management practices (BMPs) for northern Malheur County. It also identifies the tasks, duties, and responsibilities of various agencies in the implementation and followup of the plan.

Commissioner Castle asked how long it would take for changes in practices to show up in the groundwater. Gregg Pettit responded that it takes 3-4 months for water to move from the ground surface to the water table, and 2-10 years for the groundwater to flush. He also noted that the OSU Agricultural Experiment Station has been very involved in studies on the use of groundwater for irrigation without added fertilizer.

K. Commission Member Reports

Chairman Hutchison reported that the Governor's Watershed Enhancement Board will meet in Salem later in the month. They are struggling with the problem that has resulted from a shift from General Fund to Lottery Funds when the lottery funds are not coming through.

Commissioner Castle stated that he had nothing to report on the Technical Specialist Panel except that a meeting is planned for December.

L. Director's Report (Oral Report)

Director Hansen reported on the following items:

- **Finley Buttes Landfill** -- The landfill opened November 1 to accept waste from a transfer station in Clark County, Washington, which serves the City of Washougal and the public.
- **Bergsoe Settlement** -- A motion for Approval of Settlement of Adversary Proceedings has been completed for the Bergsoe facility. The settlement calls for U. S. National Bank to lend the Trustee up to \$5,000,000 for cleanup costs at the facility. The Trustee has prepared an RFP for removal, stabilization, transportation, and disposal of the slag and matte that should be awarded before the end of the year.
- **Hazardous Waste Management Conference** -- The conference was held in Portland, and was a success with more than 500 people attending.
- **Mining** -- The Department is part of a workgroup on mining that includes other agencies, industry and environmental groups. The Department is researching design criteria and performance standards for heap leach mining. This subject will be on the December work session.
- **Salt Caves Decision** -- The Department has informed the City of Klamath Falls that more time will be needed to complete the review of their application for 401 Certification of the latest version of the Salt Caves Hydroelectric Project. The City had requested the opportunity to have consultants submit additional information, thus necessitating additional time for DEQ review. The new target for a decision is December 6, 1990.

M. Legislative Update (Oral Report)

John Loewy reported that work continues on preparing drafts of the bills that were authorized by the Commission and approved for introduction to the Legislature by the Governor.

Related to other business, Michael Huston reported that a Discussion Draft of rules relating to third party appeals will be prepared for informal discussion at the next meeting.

Public Forum

No one appeared at the Public Forum.

There was no further business and the meeting was adjourned.

Approved _____
Approved with corrections _____
Corrections made _____

MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EOC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Work Session
October 11, 1990

Work Session

The Environmental Quality Commission (Commission or EOC) Work Session was convened on Thursday, October 11, 1990, at about 3:30 p.m. in Room 110 of the Memorial Union Building on the Oregon State University Campus in Corvallis, Oregon. Commission members present were: Chairman Bill Hutchison and Commissioners Emery Castle, Bill Wessinger, Carol Whipple and Henry Lorenzen. Also present were Director Fred Hansen of the Department of Environmental Quality (Department or DEQ) and several members of the Department staff.

Director Hansen provided the Commission with a proposed schedule of meetings for 1991 and asked for feedback if it presented any problems. He also provided each Commission member a copy of a proposed Memorandum of Understanding with the Emergency Management Division for review and identification of any concerns. A recently completed publication on Relative Risk developed by the EPA Science Advisory Board was distributed along with a copy of an article from the New York Times on the health effects of low levels of atmospheric pollutants.

Item 1. Discussion of Hazard Ranking System

Loretta Pickerell and Debbie Bailey, of the Environmental Cleanup Division staff, summarized written information provided to the Commission on this item. Ms. Pickerell reviewed the background of the legislation which requires the Department to develop an inventory of hazardous substance sites, and requires the Commission to adopt a system to rank the facilities on the inventory based on threats to public health and the environment. The site rank will be included as part of the information published on the inventory. An advisory committee and consultants assisted the Department in development of the proposed ranking system. The Department will be asking the Commission to authorize a rulemaking hearing on the proposed ranking rules at the November 2, 1990, regular meeting.

Ms. Bailey noted that the site ranking model uses a relative risk approach rather than an absolute risk approach. The Department reviewed other state models, and then adapted the Washington model for use in Oregon. The model develops site scores in separate categories of public health and environment, and then combines these two scores into an overall site

score that would be used to rank facilities on the inventory. The model input is based on four types of data for each of 6 pathways for exposure. Extensive guidance has been developed for staff in an effort to achieve consistency and reduce subjectivity in assigning numerical values to each of the pathways.

In response to questions about resources and timing, Ms. Pickerell indicated that an average of about 25 hours of staff time per site will be devoted to applying the model, communicating the results to the site owner, responding to comments, and updating the data base. This may reduce over time to about 18 hours per site. DEQ will begin by applying the model to active cleanup sites, and sites that were on the original inventory (about 300 sites). This will be followed by reviewing other sites in the data base. It is expected that all sites will be initially reviewed in about 1 year.

In response to a question on the effect of erroneous listing of a site, Director Hansen noted that the process in the new legislation requires the property owner to be notified and given the opportunity to correct information before the property is listed on the inventory. There is no appeal of the listing. Property owners can get their property removed from the list by appropriately cleaning up the site.

In response to other questions, the Department advised that mortgage lenders and insurance companies (rather than the threat of listing on the inventory) are driving the process to evaluate property and obtain acknowledgement that the site is clean. In fact, some owners are seeking listing of a site to justify devaluation of the property for tax purposes. In addition, a property owner does not have to have certification of a clean site to build on the property. However, if they go ahead and build, and later are directed to clean up the site, they may have to remove what they build. As a result, most are voluntarily proceeding to cleanup their site and are seeking DEQ oversight of the process.

In closing, Director Hansen noted that two forces are driving the issue -- demand for public information on potentially hazardous sites, and the need to know the universe of potential sites to facilitate decisions on the rate and extent of cleanup.

Item 2. Update on the Development of the Comprehensive Air Fee Legislative Proposal

Tom Bispham, John Kowalczyk, and Wendy Sims, of the Air Quality Division staff, presented the information on this agenda item. Mr. Bispham stated that the comprehensive Air Fee proposal is the Department's number one legislative priority, and that it was really Oregon's ultimate strategy to preserve, protect, and enhance its air resources, statewide. The proposal looks at major air pollution sources and seeks to deal with them in a fair and equitable way so as to avoid development of problems such as those in Los Angeles. He noted that it is easy to get trapped focusing on how much an individual has to pay and lose site of the broader purpose. Mr. Bispham stated that the new Federal Clean Air Act

mandates a fee for industrial emissions. Based on analysis of the relative contributions to air pollution, and the desire for equity, the Department is proposing to extend fees to four additional major categories of sources including wood stoves, motor vehicles, slash burning, and agricultural burning. The Department has been meeting with various groups, and has been meeting regularly with the Joint Legislative Committee on the Environment in the process of developing the concepts for the fee bill. He indicated that the consensus of participants was that the concept of a fee makes sense, but the details were the problem. Finally, he noted that the intent was to develop market driven incentives and disincentives rather than the traditional command and control approach to air quality control.

John Kowalczyk then reviewed handout materials regarding the proposed bill including a chart showing the relative contributions of the source classes to air pollution on a statewide basis; a table showing various fee options and the price per unit of pollutant, price per unit by source category, and total revenue raised; the expected emission reductions to be achieved; and the types of projects that could be funded from the Air Quality Improvement Fund. He stressed that industry is a small part of the problem but is required by the new Federal Clean Air Act to pay a \$25/ton fee. The Department proposed to achieve fairness by extending such a fee to other major source categories and plow the revenue back into the system to encourage air pollution reductions that may not be undertaken otherwise. He noted the difficulty in developing a fee for the motor vehicle component because of the constitutional limitation on use of fees derived from vehicles. Therefore, a package of options was being developed for this category. Finally he called attention to a listing of objectives and principles that had been assembled to guide the development of the bill. Mr. Kowalczyk noted one issue in particular regarding administration of the Fee Revenues. He identified options including administration by the Commission, by a separate legislative established committee or group, or by a group of Agency directors similar to the Governor's Watershed Enhancement Board (GWEB). Mr. Kowalczyk specifically asked for Commission direction on that issue.

After some discussion, the Commission expressed the view that a new body should not be created to manage the funds. The Commission should have the responsibility, perhaps with advise of a GWEB-type committee. Director Hansen noted that the Department did not want it to appear that the agency was empire-building. In addition, he noted that the Legislature would undoubtedly exercise oversight on the management of the funds. The Commission expressed the strong desire to have a clear mechanism built into the legislation for evaluation of the accomplishments derived from the funds. They also suggested that thought should be given to the basis for distribution of funds on a regional basis to achieve fairness.

In closing, the Commission expressed support for the proposal and asked to be kept informed as the bill develops and to report on the status during the legislative report at each meeting.

Miscellaneous Reports

At the request of the Chairman, Director Hansen reported on the status of pulp mill permits. The Department had previously issued new or modified permits to three pulp mills incorporating limits on dioxin. All three permits were appealed by the sources and by third parties pursuant to special Commission action to allow third party appeals on these permits. These permits were based on initial load allocation numbers from EPA. EPA has since revised the load allocation numbers. DEQ therefore will soon be issuing new draft permits based on the new numbers. The Hearings Officer is proceeding with the contested case hearing based on the earlier appealed permits.

In response to a question, Director Hansen reported that WTD had asked the Department to process its permit application up to the point of preparing a draft permit and forwarding the draft to EPA for review. The Company, however, does not want the Department to proceed to the public notice stage of the process at this time. This would force EPA to recognize the potential for a new state-of-the-art source as they proceed with refinement of the waste load allocation for the Columbia. The Department has agreed to proceed up to the point of developing a draft permit for EPA review.

The Commission briefly discussed the issue of mining. Several environmental organizations filed a petition with multiple agencies requesting a moratorium on mining until new regulatory mechanisms are developed. The petition was not technically complete, therefore, the agencies rejected the petition, and the Governor directed that a work group be established to pursue the issues raised. The group includes representatives from the agencies, the environmental groups, and the mining industry. The group is not to infringe on the responsibilities of agencies, but is to recommend improved coordination and identify gaps that need to be filled. Commission members were urged to attend meetings of the work group when possible.

The Commission also asked for additional information on the Department's actions related to regulation of mining. Director Hansen noted that the Department plans a detailed presentation and discussion of options for mining regulation at the December work session.

Director Hansen also reported on the events in relation to news reports of concerns related to mine tailing from the Cornucopia Mine near Halfway. The mining operations years ago concentrated natural ore elements of arsenic and heavy metals in the tailings. The tailings have been used for fill material locally and on a school ball field. Assessment of the extent of the problem is underway to determine what actions, if any, need to be taken to protect the public and the environment.

The Commission then adjourned the Work Session to go to dinner and indicated the potential for discussion of the agenda item regarding a Deputy Director Position during dinner.


STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: November 27, 1990

TO: Environmental Quality Commission

FROM: Fred Hansen 

SUBJECT: Work Session Item 1
"Gold Mining: Discussion of Options for Environmental Regulation"

Water Quality Division has prepared the following discussion of issues related to large-scale, open-pit metals mining. The purpose is to review the present regulatory status and to explore future regulatory options.

Jerry Turnbaugh of the Industrial & On-site Waste Section will make the presentation and answer questions.

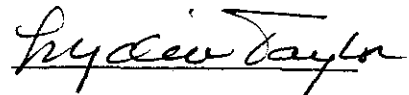
- I. Brief Description of the Open-pit/Cyanide Mining Process
- II. Response to Commissioner Lorenzen's Request (Outline of 10/17), ATTACHMENT A
- III. Brief Review of EPA and Other States' Regulatory Approach, ATTACHMENT B
- IV. Summary of Potential Heapleach/Milling Design and Operating Requirements, ATTACHMENT C

Report Prepared By:

Jerry Turnbaugh (229-5374)

Approval:

Section: _____

Division: 

IW\WC7432

ATTACHMENT A

COREY, BYLER, REW, LORENZEN & HOJEM

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October 17, 1990

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Via Facsimile

Mr. Fred Hansen, Director
Department of Environmental Quality
811 Southwest Sixth Avenue
Portland, Oregon 97204

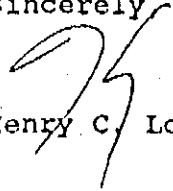
Dear Fred:

Enclosed are the rough outlines which I prepared relating to general environmental regulation of mining and to regulation of Heap Leach mining.

These outlines may be of benefit to you and your staff in preparing for the mining work session.

If you or your staff have any questions please do not hesitate to call me.

Sincerely


Henry C. Lorenzen

HCL:mk

Enclosure

cc: Mr. William Hutchison

OVERVIEW OF MINING IN OREGON

- I. Description of various mining and ore processing methods for each mineral which is mined in Oregon:
 - Number of mines
 - Volume of material processed
 - Geographical location
 - Resources consumed
 - Environmental risks
 - Methods of extraction
 - Methods of processing
- II. Identify mining activities which have created the greatest environmental damage or have the greatest potential to cause environmental harm.
- III. Environmental regulation of mining activities:
 - A. Statutes and regulations:
 - Federal
 - State
 - B. Methods by which regulations are implemented:
 - Permits
 - Operating Plans
 - Site Inspections
 - Citizen Review
 - C. Responsible agencies.
 - D. Additional necessary regulations.
- IV. Enforcement Activities:
 - A. How are mining operations monitored?
 - B. Resources committed to enforcement.
 - C. Summary of historic enforcement:
 - Injunctions
 - Fines
 - Consent orders
 - D. Assessment of quality of enforcement effort.

E. Alternatives for additional enforcement:

- State police
- County sheriff
- Citizen suits
- DEQ staff
- DOGAMI staff

V. Funding of regulation and enforcement programs:

- A. Description of sources.
- B. Analysis of sufficiency of funds.
- C. Alternatives for additional funding.
 - Permit fees
 - Tonnage fees

HEAP LEACH MINING ENVIRONMENTAL ISSUES

- I. Identify environmental hazards associated with the various stages of mining, extraction, processing and refining.
 - A. Extraction and moving of material:
 - Noise
 - Air quality
 - Soil erosion
 - Water quality
 - B. Overburden stock piles:
 - Toxic metals
 - Water quality
 - Acid leaching
 - C. Pit:
 - Interception of aquifers
 - Exposure of toxic metals
 - Leaching of toxic substances
 - Water and toxic accumulations at bottom of pit
 - D. Crushing and milling operations:
 - Noise
 - Air
 - E. Heap Pad:
 - Operational phase
 - Water quality
 - Ground
 - Surface
 - Hazard to wildlife
 - Post Operational Phase
 - Water quality
 - Neutralization
 - Cap
 - F. Cyanide Holding Ponds and Diversions:
 - Water quality
 - Surface
 - Disposal of excess solution
 - Storm water and snow melt
 - Ground
 - Leaking of ponds and canals
 - Wildlife exposure

G. Ore extraction from pregnant cyanide solution and from conventional milling operations:

- Treatment and disposal of wastes
 - Water quality
 - Hazardous wastes

H. Tailings Piles:

- Hazardous solid waste
- Water quality

I. Tailings Ponds:

- Hazardous wastes
- Water quality

II. Pollution Control Technology:

A. Identify methodology for reducing to acceptable levels environmental harm associated with each operation identified above.

III. Regulation:

A. What regulatory programs exist to insure implementation of necessary treatment and environmental safeguards?

B. What agencies have jurisdiction?

C. What additional regulations are necessary?

IV. Enforcement:

A. What level of enforcement activity is anticipated?

B. How will the enforcement be funded?

C. What enforcement actions are envisioned:

- Fines
- Consent orders
- Prohibition on operations
- Stop work orders

D. What agencies will have responsibility?

V. Approach to Regulation of Heap Leach Mining in Oregon:

A. Will environmental protection programs be technology based or will they be based on performance standards?

B. What regulatory resources are necessary for each approach?

VI. Survey of regulatory programs adopted by other states.

EPA OFFICE OF SOLID WASTE APPROACH TO REGULATION OF MINE WASTE

EPA staff and the Mine Waste Task Force of the Western Governors' Association have prepared a draft regulatory approach to regulating mine wastes entitled, "Strawman II Recommendations for a Regulatory Program for Mining Waste and Materials Under Subtitle D of RCRA".

Primary responsibility for program development would be placed on states such as Oregon that have their own EPA delegated regulatory programs. EPA would review and approve the Mining Waste and Materials Management Plans that the states develop.

The following is the Strawman II outline for the technical criteria that Oregon would have to develop for its Mining Waste and Materials Management Plan.

40CFR XXY: TECHNICAL CRITERIA FOR THE MANAGEMENT OF REGULATED MATERIALS AND UNITS

Subpart A: Purpose

- A. Protect human health & environment
- B. Establish minimum Federal criteria

Subpart B: Scope..... 19

- A. Applicability
 - 1. New and existing mines
 - 2. Exclusion of mines regulated by other regs.
- B. Effective Date--NLT 5 years after plan approval

Subpart C: Performance Standards..... 23

- A. Characterization of Regulated Materials and Site Factors
 - 1. Owner shall submit initially and every 5 years
 - 2. Technical elements to be included
 - 3. Environmental description of site
- B. Performance Standards for Groundwater
 - 1. Standards must be set to protect beneficial uses
 - 2. Standards shall address all parameters of concern
 - 3. Surface water standards shall be considered if groundwater is surface connected
 - 4. Standards must be met at compliance point

C.	Performance Standards for Surface Water.....	29
1.	Standards must be protective	
2.	Standards shall address all parameters of concern	
3.	Standards shall apply to all state and US waters	
4.	Standards must be met at compliance point	
D.	Performance Standards for Air.....	31
1.	Mine must assess potential for dust migration	
2.	Health-based standards may be set	
3.	Standards must be met at compliance point	
E.	Performance Standards for Soils and Surficial Materials	
1.	Mine must assess releases to soils	
2.	Soil standards may be set	
3.	Standards must be met at compliance point	
Subpart D:	Design and Operating Criteria.....	35
A.	General Criteria Applicable to All Regulated Units	
1.	Mines must meet Subpart C in all phases	
2.	Mine must ensure structural stability	
3.	Run-on/run-off systems to control water	
4.	No hazardous materials disposal on site	
5.	Prevent unauthorized entry	
6.	Prevent improper use or contact with materials	
7.	Ponds shall be stable and not flood	
8.	Plan required for land application of wastewater	
9.	Comply with wildlife protection acts	
B.	Criteria Applicable to Regulated Units in Specific Locations	
1.	Protection provisions if in 100-year floodplain	
2.	Comply with 404 of CWA if in wetland	
3.	Seismic design if in seismic zone	
4.	Design requirements for unstable areas	
5.	Protection provisions if in fault area	
6.	Studies of water impact if in karst terrain	
7.	Protection provisions if on permafrost	
Subpart E:	Monitoring and Verification Criteria.....	50
A.	Monitoring Criteria for Groundwater	
1.	Must have groundwater monitoring	
2.	Assess movement of contaminants to groundwater	
3.	Agency may exempt mine from above assessment	
4.	General requirements for monitoring system	
5.	Mine must have approved monitoring program	
6.	Statistical method used to determine compliance	
7.	Notice and corrective action plan for contamination	

B.	Monitoring Criteria for Surface Water.....	55
	1. Must have surfacewater monitoring	
	2. Assess movement of contaminants to surfacewater	
	3. Agency may exempt mine from above assessment	
	4. General requirements for monitoring system	
	5. Notice and corrective action plan for contamination	
	6. May exempt mine if cause of release is elsewhere	
C.	Monitoring Criteria for Air.....	58
	1. Monitoring required for other air emissions	
	2. Standards must be met at compliance point	
	3. Monitoring system required if standards set	
	4. Agency may exempt mine from above if not release	
	5. General requirements for monitoring system	
	6. Notice and corrective action plan for contamination	
	7. May exempt mine if cause of release is elsewhere	
D.	Monitoring Criteria for Soils and Surficial Materials	
	1. Mines must meet these requirements in all phases	
	2. Must assess whether standards would be exceeded	
	3. Soils monitoring system required if standards	
	4. May exempt mine if no potential release	
	5. General requirements for monitoring system	
	6. Notice and corrective action plan for contamination	
	7. May exempt mine if cause of release is elsewhere	
E.	Verification of Design and Operating Criteria	
	1. Agency establish verification requirements	
	2. Agency specify frequency and protocols	
	3. Corrective action plan if violation noted	
Subpart F:	Corrective Action Criteria.....	64
A.	Corrective Action Requirements for an Exceedence of Performance Standards	
	1. Corrective action plan schedule required	
	2. Mine must submit effective plan	
	3. Agency reviews and approves plan	
	4. Mine shall implement plan	
	5. Implementation complete if no further reduction	
B.	Corrective ACTION for Noncompliance with Design and Operating Criteria	
	1. Corrective action plan schedule required	
	2. Mine must submit effective plan	
	3. Agency reviews and approves plan	
	4. Mine shall implement plan	
	5. Implementation complete if no further reduction	
	6. Defects corrected by qualified professional	

- A. Applicability
 - 1. All mines subject to closure requirements
 - 2. May be released if not further monitoring required
 - 3. Closure does not preclude reprocessing or reuse
- B. Closure Plan
 - 1. Mine must prepare closure plan
 - 2. Plan must be certified by qualified professional
 - 3. Plan submitted prior to closure or new construction
 - 4. Plan changes require request
 - 5. Agency approves new plans and plan changes
 - 6. Approved plan enforceable part of permit
- C. Closure Deadlines
 - 1. Closure must begun 24 months after mining or economical extraction
 - 2. Agency may grant extension of closure deadline
 - 3. Must submit notice and data 60 days before closure
 - 4. Closure must be complete within 5 years
- D. Closure Activities
 - 1. Submit materials data 60 days before closure
 - 2. Closure must meet plan requirements
 - 3. Must record notice on deed of regulated materials
- E. Certification of the Completion of Closure
 - 1. Mine must certify closure within 60 days
 - 2. Agency must conduct on-site inspection
 - 3. Closure approval no release for corrective action
- F. Post-Closure Care Plan
 - 1. Must submit post-closure care plan
 - 2. Plan must be certified by qualified professional
 - 3. Plan submitted prior to closure or new construction
 - 4. Plan changes require request
 - 5. Agency approves new plans and plan changes
 - 6. Approved plan enforceable part of permit
- G. Post-Closure Care Deadlines
 - 1. Care must continue for 30 years
 - 2. Agency may reduce or extend 30 year period
- H. Post-Closure Care Activities
 - 1. Plan must be followed
 - 2. Deed notice may be removed if materials removed
- I. Certification of the Completion of Post-Closure Care
 - 1. Mine must certify closure within 60 days
 - 2. Agency must conduct on-site inspection
 - 3. Closure approval no release for corrective action

Subpart H: Financial Responsibility Criteria..... 84

- A. Applicability--State/Federal ownership exempted
- B. Scope of Coverage
 - 1. Financial responsibility for closure, care and,
 - 2. corrective action for releases and,
 - 3. third-party BI/PD liability due to release
- C. Financial Responsibility for Closure
 - 1. Detailed cost estimate required
 - 2. Must demonstrate financial responsibility
- D. Financial Responsibility for Post-Closure Care
 - 1. Detailed cost estimate for post-closure required
 - 2. Must demonstrate financial responsibility
- E. Financial Responsibility for Corrective Action
 - 1. Corrective action cost estimate required
 - 2. Must demonstrate financial responsibility
- F. Financial Responsibility for Third-Party Liability
 - 1. Minimum \$2 mill/\$4 mill BI/PD
 - 2. Must demonstrate financial responsibility
 - 3. Must demonstrate prior to permit issuance
 - 4. Agency may release at completion
- G. Allowable Mechanisms
 - 1. Funds must be adequate, available and binding
 - 2. Instrument wording, type must be acceptable
 - 3. Funding pools, other may be substituted
 - 4. Cancellation of instrument requires notification
 - 5. by mine or provider
 - 6. New owner must also demonstrate compliance

Subpart I: Pollution Prevention..... 95

Jerry Turnbaugh, WQ
11/16/90

**STATE NON-COAL
MINE WASTE REGULATORY PROGRAMS**

RESULTS OF A MULTI-STATE SURVEY

**MINE WASTE TASK FORCE OF THE
WESTERN GOVERNORS' ASSOCIATION**

September 30, 1990

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STATE NON-COAL MINE WASTE REGULATORY PROGRAMS RESULTS OF A MULTI-STATE SURVEY

BACKGROUND

In the Spring of 1988 the Environmental Protection Agency issued a proposal for regulating mining waste under Subtitle D of the Resource Conservation and Recovery Act (RCRA). In response to that proposal, the Western Governors' Association (WGA) formed a multi-state Mine Waste Task Force to provide information to EPA regarding the development of effective mine waste programs. Recognizing that a significant share of non-coal mining activity occurs within WGA member states, EPA decided to provide funding for WGA to coordinate the efforts of the Task Force. In addition to WGA member states, Florida, Missouri, South Carolina and Wisconsin have been active participants in the Task Force. (Figure 1)

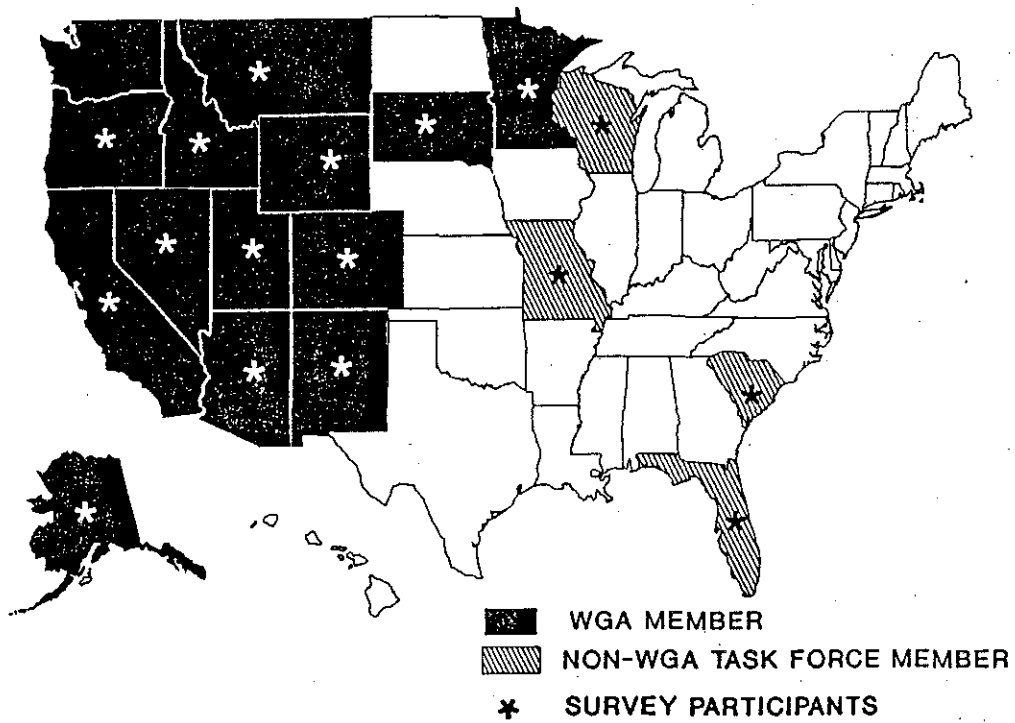
As part of its ongoing work with EPA, the Task Force conducted a survey of existing state level regulation of mining waste. The results of the survey are described in this paper. The survey was conducted for the purpose of gathering information on the status and extent of coverage of existing mine waste regulation in the surveyed states, in order to determine whether the basic regulatory tools and mechanisms exist for implementation. The survey was not designed to compare the quality of programs on a state-to-state basis. The survey may indicate the presence of a particular program element which may or may not be supported by explicit statutory text or regulation, but instead represents the state respondent's assessment of the actual practice of mine waste regulation within that particular state.

The information in this paper is a condensation of a detailed report entitled: "Tabulated Responses to a Survey of State Non-Coal Mine Waste Regulatory Programs" which also contains the original survey instrument. This report is cited extensively throughout the following paper as noted by the endnotes.

CONCLUSIONS WHICH CAN BE DRAWN FROM THE SURVEY

- State regulatory programs have evolved to satisfy the needs of each particular state. Diversity of state regulatory programs reflects the specific climatic, geologic and other unique conditions of each state.
- All surveyed states use a multiple permit approach to regulate major environmental media affected by mining.
- Most states issue facility permits while some states issue individual "waste unit" permits but normally only with respect to specific media such as air, surface water or groundwater.
- Most states have been delegated primacy for federal environmental programs including RCRA, Clean Water Act, Clean Air Act, Safe Drinking Water Act, etc.

WGA MINE WASTE TASK FORCE



AUGUST 1990

Changes in State Regulatory Approaches Since 1988

Since the Task Force was established in 1988, the states have updated the survey results on two occasions. During the past two years, at least five of the participating states in the Mine Waste Task Force have strengthened their environmental laws and regulations governing non-coal mining waste.

- In 1989 Nevada and Missouri enacted major new statutes to regulate the environmental aspects of mining.
- In 1989 Utah developed new groundwater rules and is currently developing rules for heap leaching activities.
- Colorado recently enacted legislation that addressed the management of groundwater by state agencies.
- New Mexico modified state interagency organizational agreements to improve environmental controls for mining operations.

Some of these changes to state programs have been stimulated by the information states have exchanged as the Task Force has met and analyzed state regulatory programs over the past two years. These changes highlight the fact that state regulation of mining is an evolving and dynamic process. It is also important to note that even without the direction or stimulus of federally mandated programs, states have taken steps to respond to the specific needs of the environment and protection of human health.

EXISTING FRAMEWORK OF STATE MINE WASTE REGULATIONS

This section discusses a number of issues raised by Task Force members in response to the survey, including non-survey related conclusions.

Unique State Characteristics

More than 88 percent of non-coal mining waste (as defined in EPA's December 1985 First Report to Congress: EPA/530-SW-85-003) generated annually in the United States occurs in the Task Force states. (Table 1)

In developing a workable federal regulatory framework, it is important to recognize the diversity in topographic and climatic conditions impacting these states. Large areas of at least nine of the Mine Waste Task Force states can be described as arid (AZ, CA, CO, ID, NM, NV, OR, UT, WY); at least six states have coastal environments (AK, CA, FL, OR, SC, WA); and some states have both, with significant rainfall on one side of their mountain ranges and desert like conditions on the other. As a result of such differences, states have adopted regulatory approaches to mining wastes which are relevant to their specific environmental conditions.

STATE RANK (1)	TOTAL MATERIAL HANDLED, (2) SHORT TONS/YEAR	DISTRIBUTION BY STATE	
		Percent	
Florida	392,768,040		23.3
Arizona	273,121,572		16.2
New Mexico	244,063,004		14.5
Nevada	152,479,076		9.1
Minnesota	145,445,105		8.6
Michigan	77,304,498		4.6
California	64,389,911		3.8
Idaho	58,715,709		3.4
North Carolina	52,108,553		3.1
Montana	46,613,943		2.8
Colorado	27,223,873		1.6
Utah	22,000,310		1.3
South Dakota	21,612,237		1.3
Tennessee	15,443,679		0.9
Missouri	12,865,374		0.8
Wyoming	11,308,352		0.7
Alaska	10,348,512		0.7
Georgia	8,465,732		0.5
Texas	8,118,007		0.5
New York	5,931,931		0.4
South Carolina	4,571,646		0.3
Oklahoma	3,621,148		0.2
Kansas	3,342,976		0.2
Ohio	2,604,193		0.2
Indiana	2,554,371		0.2
Vermont	2,538,799		0.2
Mississippi	2,408,500		0.1
Pennsylvania	2,346,097		0.1
Iowa	2,248,956		0.1
Kentucky	1,609,944		0.1
Washington	1,235,730		0.1
Virginia	1,217,213		0.1
Illinois	706,193		0.0
Oregon	685,198		0.0
Connecticut	483,838		0.0
Nebraska	413,336		0.0
West Virginia	401,798		0.0
Arkansas	321,469		0.0
Maryland	315,810		0.0
Massachusetts	261,651		0.0
Louisiana	183,027		0.0
New Jersey	140,852		0.0
North Dakota	137,082		0.0
Maine	85,974		0.0
Alabama	27,902		0.0
New Hampshire	26,166		0.0
Hawaii	12,700		0.0
Delaware	0		0.0
Wisconsin	0		0.0
Rhode Island	0		0.0
ALL STATES =	1,683,429,987		100.0
WGA TASK FORCE STATES =	1,488,047,592		88.4

Source:

All data come from the U.S. Bureau of Mines computer data base. The Bureau has indicated that its database is incomplete due to the need to protect confidential information. Total material handled is therefore larger than indicated above. Distributions by state could also change if all data were included. Secondary tabulation by R. D. Andrews, Boulder Innovative Technologies.

Notes:

(1) Data for the WGA Mine Waste Task Force states is shaded.

(2) Total material handled includes all non-coal metallic and non-metallic ores and overburden as per 1985 EPA 1st Report to Congress (RTC). This number does not include coal and other energy minerals, sand, gravel, stone, gypsum, certain salts, or clays.

Material handled is an approximation of the waste handled, since most materials contain small percentages of recovered values. (More true with metals than non-metal mineral commodities.)

The geographic diversity among the Task Force states is illustrated by the dissimilarities in groundwater and surface water conditions. For example, in arid western states, the depth to groundwater is frequently much greater than in states where annual precipitation is higher. Given such diverse circumstances, it is important that regulations remain flexible to allow application of standards and criteria that are appropriately matched to the local environmental conditions (e.g. climate, geology, altitude, etc.).

Figure 2 summarizes survey results of the types of mining activities which Task Force member states can currently regulate under existing authorities. It is important to note that the survey did not correlate the relationship of mining activities to existing regulatory programs; for example, not all states have oil/tar sands and therefore such states would not be expected to have regulations covering this particular category.

Variations in State Regulatory Programs

When evaluating survey responses, a concerted effort was made to identify patterns in how states are organized to regulate wastes from non-coal mining operations. What was found is that there is no typical organizational framework.

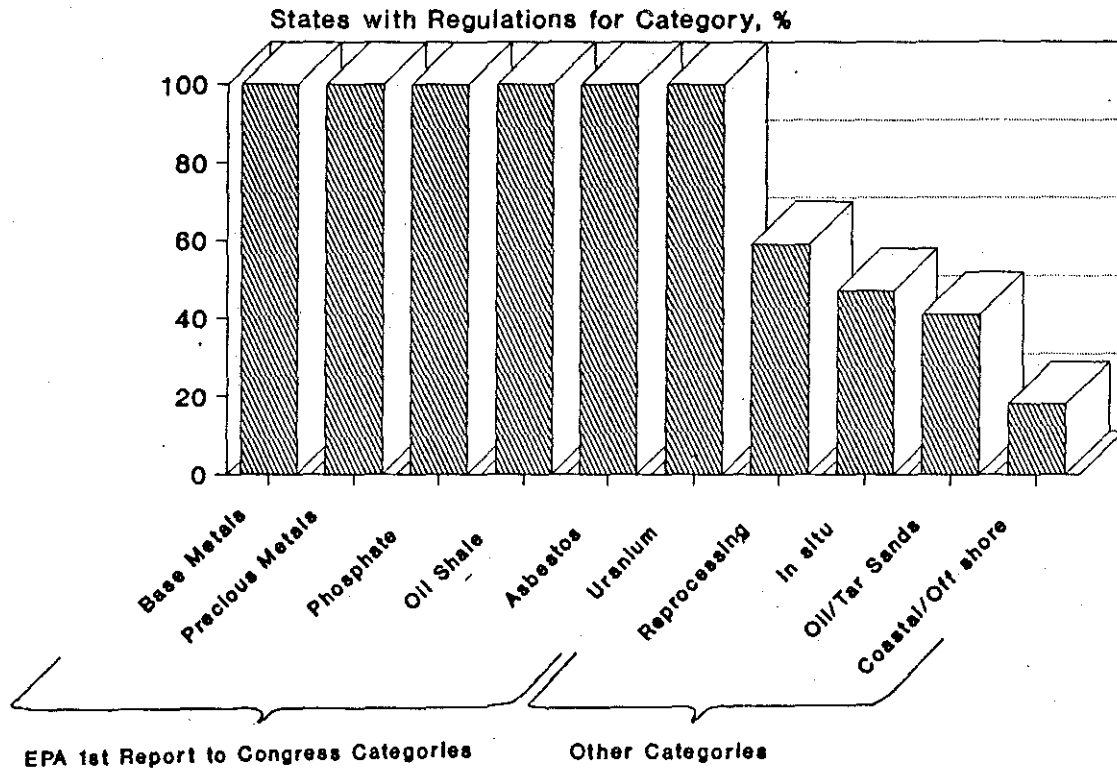
Although there is no single approach to regulating mining waste, discussions with Task Force participants indicate that states have indeed borrowed successful regulatory approaches from each other. It is not uncommon for a state to look to the experiences of other states when encountering a new mining waste related issue. For example, cyanide heap leaching technology has only been used on a large scale over the last decade. The states have relied extensively on each other to learn what methods are most effective in regulating this new technology.

Regulating Active Versus Inactive and Abandoned Mines

Even though the issue of how to regulate wastes from inactive and abandoned non-coal mines was not an issue which the survey specifically addressed, the Task Force has spent a significant amount of time discussing what should be done with such wastes. After reviewing the survey results which show that most states already regulate active (e.g. currently active and new) operations, the Task Force has concluded that it needs to go back to the states and ask specifically what states are doing to mitigate the impact from mine wastes on inactive and abandoned sites.

Consequently, the Task Force has contracted with the Western Interstate Energy Board (WIEB) to conduct a study evaluating existing information on the health, environmental, and safety problems caused by inactive and abandoned mines. This study also will identify and evaluate policy options for addressing these wastes, including remining and reprocessing so that, where practical, unregulated wastes may eventually be brought under regulation as active operations.

SCOPE OF STATE REGULATION Mining Categories Regulated



Note: Not all states have all categories of mining and therefore, not all states can be expected to have regulations for all categories.

Source: For additional detail regarding the information contained in this figure, please refer to the document titled "Tabulated Responses to a Survey of State Non-Coal Mine Waste Regulatory Programs" which can be obtained by calling WGA as noted in the endnotes to this document.

STATE REGULATORY APPROACHES

This section summarizes survey data on state programs and provides specific references to survey results. Although states use distinct approaches in regulating mine waste, survey responses indicated that many state programs have common attributes. A summary of existing state mine waste regulatory elements is provided in Figure 3.

Permitting

Types of State Permits:

The states participating in the survey have a variety of permit, license and approval systems which are used to regulate mine waste. Several examples drawn from the survey include the following.

Fifteen of the seventeen surveyed states have a mining and reclamation permit or a mine waste permit. (1) Only one of the surveyed states reported that it utilizes a comprehensive permit, all others use multiple permits. (2)

Four states issue a comprehensive mine permit that covers all media, incorporating by reference the specific conditions of other permits. (1, id.) Other states require the separate processing and issuance of a large number of special purpose, media or issue specific permits or approvals with little coordination among the independent regulators.

Eight states provide either regulatory exclusions or waive certain requirements based upon the size of a mining operation (commonly based upon a threshold of area disturbed or volume of waste). Some states also allow exclusions based on mineral categories, waste characteristics or risk thresholds. (3)

Multi-Agency Permit Review Coordination:

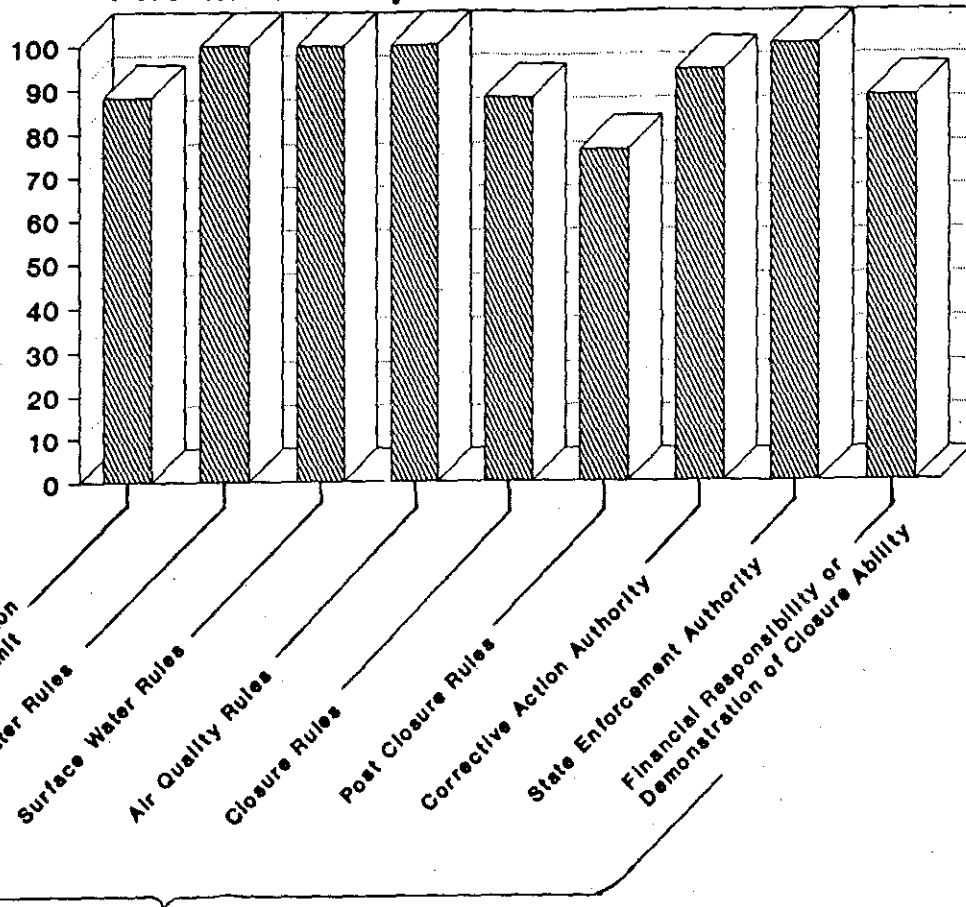
In many states, programs are divided between two principal departments, often a department of environmental protection and a department of natural resources. In some cases, departments have the balancing roles of environmental regulation and economic development. It is not unusual for additional state departments or agencies which deal with occupational health and safety, water resources and water rights, local affairs, and others to be involved in the mine waste permitting process.

States use a variety of methods to communicate and coordinate among the numerous state, local and federal agencies involved in a mine permit review. Many of the processes are informal. Others are established by statute, executive order or memoranda of agreement among the involved agencies.

Eight states report that they use a designated lead agency to coordinate this process, at least among the major permits and agencies involved. Two states utilize a coordinated review process, but without a designated lead agency.

SUMMARY OF EXISTING STATE MINE WASTE REGULATORY ELEMENTS

Percent of Surveyed States



Mining Waste Regulatory Program Element

Source:

For additional detail regarding the information contained in this figure, please refer to the document titled "Tabulated Responses to a Survey of State Non-Coal Mine Waste Regulatory Programs" which can be obtained by calling WGA as noted in the endnotes to this document.

The majority of the reporting states conduct independent, multi-agency reviews of permits with no formal coordination mechanism. However, some states choose to coordinate major projects through the governor's office or use a conflict/coordination group process to resolve inter-agency conflicts. A few states also provide for a specially coordinated process at the request of the applicant, or if certain qualifying criteria are met, such as project size. (4)

Local Government Involvement in Permitting:

Many states delegate certain permit issuance and administrative authorities to regional or county governments. (5) Most states delegate land use and zoning controls over mining operations and mining waste to the counties.

State Primacy in Enforcement of Federal Environmental Laws

A state obtains "primacy" when it has demonstrated to a federal agency that it has met minimum requirements necessary to fully implement and enforce a program created by federal statute. Primacy under any of the federal environmental statutes should ensure a significant degree of regulatory consistency among states. As indicated below, survey results show that many of the states have primacy for some or all of the major federal environmental laws.

Twelve of the seventeen surveyed states have primacy in the point source discharge program (NPDES) under the Federal Clean Water Act. Thirteen states have primacy under the Clean Air Act, and eleven have RCRA Subtitle C approval with two additional states seeking program approval under Subtitle C. Thirteen states have primacy under the Safe Drinking Water Act programs, with most also qualifying for primacy under the Underground Injection Control program. Five states have primacy for Nuclear Regulatory Commission source material licensing. (6)

Types of Plans Required

In order to initiate the regulatory process, a mining company is required to submit plans describing its proposed mining operations to the state. The form and content of such plans vary greatly from state to state. States also take different approaches to the review of these required plans during the permit issuance, modification, and renewal processes.

mine plan -- Sixteen of the states require preparation of a mine plan prior to initiation of operations (a mine plan defines an operator's proposed course of action and is submitted to the state for approval). (7)

closure plan -- Sixteen states also require a specific closure plan (a closure plan describes how the operator will terminate operations and monitor environmental conditions throughout the duration of the period defined by statute or regulation and in a manner consistent with the site's mine plan). (7, id.)

post-closure plan -- Post-closure plans are required in fourteen states (a post-closure plan describes how environmental conditions at the site will be monitored and maintained after the closure plan has been completed). (7, id.)

baseline monitoring plan -- Fifteen states require baseline monitoring plans and several states have established guidelines for conducting baseline monitoring (a baseline monitoring plan describes the condition of the site prior to the existence of the operation in order to determine at a future date, the degree to which the operation has had an impact on the site and to provide a basis for closure requirements). (7, id.)

operational monitoring plan -- Operational monitoring plans are required in virtually all of the surveyed states (an operational monitoring plan provides for verification of compliance with standards, criteria and permit conditions; it is normally site specific and includes pollutants to be monitored, monitoring frequency, procedures, locations, etc.). (7, id.)

Waste Units Regulated

The survey indicates that most states authorize mine waste activities on a facility basis by including all associated mine waste units under a single authorizing instrument, instead of issuing permits for discrete waste units. (8) A single waste unit may be covered by many permits (e.g. a mine/reclamation permit, a groundwater permit, a dam safety permit, a water rights permit, a fugitive dust permit, a solid waste disposal permit, etc.). Occasionally states will issue state-wide operating permits for small or low impact types of operations (e.g. exploration permits, small/short-term sand and gravel operations), rather than site-specific or unit-specific permits. (9)

Water Quality Protection

Groundwater Quality:

All reporting states have some form of groundwater regulations that apply to mining waste. Beneficial use categories (e.g. a use for specific purposes such as drinking water or agriculture, as defined by statute or regulation) are used in thirteen states. Eleven states have non-degradation or anti-degradation standards. And fifteen states have water quality standards for specific pollutants -- for example, standards for heavy metals such as lead or cadmium which are included in their regulations. (10)

A large percentage of the surveyed states have some form of groundwater standards and many of the respondents utilize mechanisms such as specific groundwater permits, mining or reclamation permits to protect the groundwater. (11)

Surface Water Quality:

All of the survey participants apply controls to the disposal of mining waste to protect surface water quality. Survey responses revealed that water-use categories and non-degradation or anti-degradation standards are used in fifteen states. All of the responding states have in-stream standards that set allowable limits for specific parameters. (12)

Water Discharge Controls:

Numerous types of discharge controls which apply to the environmental control of mining activities and wastes exist at the state level. Sixteen of the states have point source effluent limits for mining, usually associated with the Clean Water Act NPDES program. Non-point source controls take several forms in the states; eleven states require sediment controls which collect runoff from disturbed areas; twelve states have run-off quality limitations; fifteen states require upstream diversion of water to prevent contact with mine wastes. (13)

Water Rights Controls:

Water rights are particularly important in the more arid western states but also are found in the regulations applying to mining activities of other states. Sixteen of the reporting states have established water rights with use/consumption priorities or prior appropriation systems and fifteen have groundwater depletion controls. Minimum stream flow standards to protect beneficial uses, including wildlife, are applied or can be publicly petitioned in thirteen of the reporting states. Navigation rights are recognized by regulation in eleven of the states. (14)

Air Quality Protection

Air quality is an important consideration in mining activities that produce fugitive dust or in cases where the air pollutants may contain hazardous materials such as metals or fibrous materials. Sixteen of the surveyed states have specific regulations pertaining to the same criteria pollutants from mining operations as indicated in the Clean Air Act. Visibility protection and Prevention of Significant Deterioration (PSD) evaluations as well as environmental concerns near Class I areas are normal parts of permit reviews in states which have approved State Implementation Plans (SIPS) under the Clean Air Act. All of the surveyed states report that they apply specific controls to fugitive dust from mining and mine waste and seven states issue specific fugitive dust control permits. (15)

Closure and Reclamation Controls

Closure Requirements:

Most of the surveyed states currently require mine waste closure to be conducted by the owner/operator under the conditions of one or more permits and approvals. Fifteen of the states require physical stabilization for structural integrity and an additional state is developing such a rule. (16)

Fourteen of the responding states have closure requirements for specific final landforms (e.g. shape, cover and contours). Thirteen states have waste neutralization or fixation requirements. Fifteen states have regulations requiring stabilization of final drainage systems (e.g. permanent drainage/flood controls, diversions, etc.). Fourteen states have some form of revegetation requirement. (17)

Thirteen of the responding states require restoration of wildlife habitat. States also allow mining sites to be restored to land uses other than wildlife habitat such as agriculture, recreation, etc. Thirteen states have long-term monitoring requirements to demonstrate compliance with closure requirements and to detect environmental problems. Fourteen states have maximum allowable time limits in which to achieve closure. Twelve states allow for a stand-by status which provides for temporary deferral of final closure with reasonable cause. This is usually provided to deal with the cyclical nature of the mineral business, thereby not requiring premature site closures but ensuring that a site cannot remain in stand-by status indefinitely. (18)

Closure Triggers:

Many states require mine waste site closure to commence within certain time limits after cessation of mineral recovery activities. Thirteen of the responding states have a specific time period (as defined by state regulation) in which closure must start. This period varies from six months to ten years among the surveyed states.

A number of the states allow stand-by status with time limits ranging from two to five years and allow extensions based on demonstrated cause and a case-by-case review. Conditions for granting extensions in commencing or completing closure are usually placed on the operators. These may include continuation of monitoring and demonstration of compliance with environmental standards and permit conditions, maintaining complete financial assurance instruments, continued or periodic economic justification for deferred closure or other requirements.

Thirteen of the states have the authority to require progressive closure, that is, area-by-area or waste-unit by waste-unit within the overall facility. This is done to minimize environmental impact and liability. (19)

Post Closure Requirements:

The survey found that not all states distinguish between the terms closure and post-closure standards in their statutes and regulations. However, as stated earlier in this report, sixteen of the surveyed states indicated that they do require a closure plan. Thirteen states require site access controls (i.e. fencing/posted signs/security measures) for post-closure. Some of the states have defined allowable final land uses and some have requirements or limitations on ownership/liability transfer. (20)

A specific post-closure care period is designated by nine of the states, but in some of these states the time period can be adjusted on a case-by-case basis. A final state inspection is required in fourteen states before the operator may be released from financial responsibility. In twelve of the states the operator is required to certify that closure has been completed. In a few states a deed/abstract affidavit indicating that the site contains mine waste materials is required prior to final site release by the state. (21)

Corrective Action Programs

Sixteen of the survey states have authority to take corrective action in the event of imminent threat to public safety, human health and the environment, or upon a significant spill or release of pollutants from mine wastes. (22) All states require the operator to notify state authorities of exceedances of standards, an imminent threat to human health and the environment, or an imminent catastrophic event. Fifteen states can require the operator to submit a corrective action plan, either at the time of the exceedance of the standard or as part of the initial mine waste operating or closure plan. (23)

Enforcement Authorities and Penalties

All survey participants have a range of enforcement mechanisms available to use to correct or penalize violations of state requirements. Virtually all states have mechanisms for the imposition of civil penalties, issuance of administrative orders or injunctions, and permit suspensions and revocations. All of the states have authority to seek damages for harm to the environment. (24)

A key difference in state enforcement ability lies in the states' ability to take administrative action without bringing a legal action in the courts. For example, twelve states provide regulatory agencies with the authority to assess administrative penalties. (24, id.) Authorities typically exist to seek injunctions, damages, or penalties but these commonly must be sought through judicial due process.

Financial Responsibility

Thirteen states have, or are developing, regulations requiring a mine operator to demonstrate that waste unit closure can be completed successfully. Twelve states require some form of financial assurance bonding from an owner or operator. Three states require bonding for certain "credible accident" events. (25) The basis of financial assurance coverage varies and some states make distinctions in coverage requirements based upon the magnitude or type of operation. Some states have a specified maximum bond requirement for mines having limited impacts, e.g. disturbances less than ten acres. States project closure costs based on the owner, the state or a third party taking responsibility for executing closure. (26)

SUMMARY

State regulation of mining is an evolving and dynamic process. As the survey indicates, states have taken steps to protect human health and the environment from the impact of mining operations. Since the inception of the Mine Waste Task Force, a number of states have strengthened their environmental laws and regulations governing the management of non-coal mining wastes. Some of these state changes have been stimulated by the information states have exchanged as they have met and analyzed each other's regulatory programs during the past two years.

As with almost every survey, this survey has led to additional questions which need to be answered. In particular, the states recognize the need to distinguish between the health and environmental impacts of active mining operations as compared to the impacts caused by yesterday's operations, e.g. inactive and abandoned operations. In responding to this particular question, the Task Force has agreed to research the existing information on inactive and abandoned sites in their states, and will report the findings as soon as they are available.

ENDNOTES

Endnotes relate to a separate document entitled Tabulated Responses to a Survey of State Non-Coal Mine Waste Regulatory Programs which contains both the tabulated responses to the state survey and the original survey questionnaire. Copies can be obtained by calling WGA at (303) 623-9378.

1. State Survey Table II-3; survey questionnaire, question II.D.
2. State Survey Table II-5; survey questionnaire, question II.G.1.
3. State Survey Table I-1; survey questionnaire, question I.A.1-5. or I.B.1.
4. State Survey Table II-5; survey questionnaire, question II.G.2.
5. State Survey Table II-1; survey questionnaire, question II.A.
6. State Survey Table II-4; survey questionnaire, question II.E.
7. State Survey Table I-11; survey questionnaire, question I.H.1-6.
8. State Survey Table II-2; survey questionnaire, question II.C.1.
9. State Survey Tables II-2; survey questionnaire, questions II.C.1.
10. State Survey Table I-3; survey questionnaire, question I.C.2.a.(1)-(5).
11. State Survey Table II-3; survey questionnaire, question II.D.9.a.-d.
12. State Survey Tables I-3 and II-3; survey questionnaire, questions I.C.2.b.-c. and II.D.8.a.-e., respectively.
13. State Survey Table I-3; survey questionnaire, question I.C.2.c.(1)-(2).
14. State Survey Table I-3; survey questionnaire, question I.C.3.a.-d.
15. State Survey Tables I-4 and II-3; survey questionnaire, questions I.C.4.a.-e. and II.D.7.a.-c., respectively.
16. State Survey Tables V-1 and V-2; survey questionnaire, questions V.A.1. and V.B.1.-2., respectively.
17. State Survey Table V-1; survey questionnaire, question V.A. 2,3,4 & 6.
18. State Survey Table V-1; survey questionnaire, questions V.A. 5,7,8,9, & 12.

19. State Survey Table V-3; survey questionnaire, questions V.C. 1-5.
20. State Survey Table V-4; survey questionnaire, question V.E.1-5.
21. State Survey Table V-4; survey questionnaire, question V.F.1-4.
22. State Survey Table VII-1; survey questionnaire, question VII.A.1-2.
23. State Survey Table VII-1; survey questionnaire, questions VII.B.2,3,5.
24. State Survey Table II-8; survey questionnaire, questions II.J.1-5.
25. State Survey Table VI-1; survey questionnaire, questions VI.A.1.a.,b.,e.,i.
26. State Survey Table VI-1; survey questionnaire, question VI.A.1.

WGA wishes to acknowledge the assistance of Josh Epel and Rich Andrews in the preparation of this paper.

POTENTIAL REQUIREMENTS FOR HEAP-LEACH ORE PROCESSING

The Leach Heap

The following technical and administrative control requirements apply to the leach heap used for processing metal ores with toxic lixivants by the method known as "heap-leaching".

LISTING OF POTENTIAL REQUIREMENTS

1. Surfacewater/Groundwater Siting Study
2. Stormwater Diversion Away from the Heap
3. Perimeter Animal Fence Around the Heap
4. Seismic/Gravity Stability Design of Retaining Structures
5. Compacted Clay/Soil Sub-base Under the Heap
6. Plastic Liners Under the Heap
7. Cyanide Application by Drip Nozzles
8. Minimum Stored Solution Depth (Head)
9. Secondary Containment of Piping
10. Between-Liner Leak Detection
11. Vadose Leak Detection Under the Heap
12. Groundwater Monitoring Wells
13. Limit on Uppermost-Liner Leak Rate
14. Cellular Leak isolation/Repair
15. Operating Procedures For Temporary Shutdown
16. Cyanide Detoxification At Closure
17. Cyanide Closure Criteria For Rinsate And Spent Ore
18. Evaluation of Long-Term Spent-Ore Leach Risk
19. Clay/Soil And/Or Plastic Top Cover
20. Soil/Vegetation Reclamation At Closure
21. Adequate Reclamation/Chemical Processing Bonds
22. Thirty Year Post-Closure Monitoring
23. Five-Year Decision Intervals For Releasing Chemical-Processing Bond
24. Oregon Water-Pollution Control Facility Tax Credit

DESCRIPTION OF POTENTIAL REQUIREMENTS

1. Surfacewater/Groundwater Siting Study

Purpose: To characterize existing surfacewater and groundwater quantity, quality and mobility and to assess potential impact of the proposed mining operation.

Required: Full study which assesses both macro (whole project) impact and micro (relative to the ore chemical processing area). Leach heaps, pregnant and barren ponds should not be sited in areas of vulnerable or critical groundwater, or over surfacewater drainages.

It is anticipated that the study will be accomplished during the baseline study portion of DOGAMI's operating permit for the project.

2. Stormwater Diversion Away from the Heap

Purpose: To prevent flooding and erosion of the heap and contamination of stormwater.

Required: Construction of ditches and diversion structures above the heap that will divert a 100-year, 24-hr storm (or any other defined storm event that is more appropriate to the area). Snow accumulation must also be taken into account.

3. Perimeter Animal Fence Around the Heap

Purpose: To prevent poisoning of water-stressed wildlife.

Required: Chain-link (or equivalent) fencing that will exclude the majority of animals (except, perhaps, burrowing animals), that will be properly maintained during the life of the project.

4. Seismic/Gravity Stability Design of Retaining Structures

Purpose: To prevent foreseeable structural failures of the leach heap retaining structures.

Required: Professional stability analysis and design of all retaining structures, including seismic requirements, where applicable.

5. Compacted Clay/Soil Sub-base Under the Heap

Purpose: To provide a low-permeability, structurally-stable base for the leach heap that will prevent subsidence, prevent puncture of the plastic liner by rocks and act as an additional seal against leakage of chemicals.

Required: An engineered sub-base, a minimum of 12 inches thick that will provide stable structural support for the leach heap loads and will have a demonstrated minimum water permeability of 1×10^{-7} cm/sec.

The low-permeability sub-base, in conjunction with the lower plastic liner in direct contact with it, are assumed to form a composite seal that will prevent or minimize secondary leakage to the underlying ground.

6. Plastic Liners Under the Heap

Purpose: To provide a positive chemical leak barrier between the heap and the environment and to confine liner leakage for collection and analysis.

Required: Professionally installed double plastic liners, separated by at least 12 inches of finely-divided material, that will retain their integrity through the life of the project. High-density polyethylene (HDPE) at least 60-mil thick is generally preferred, although other materials and thicknesses may be accepted.

Results of field tests of liner integrity must be submitted to the Department for review.

Rationale: The uppermost liner, with the leak detection system under it is intended to be the primary leak prevention and repair system. By analogy, this uppermost liner is the bottom of the processing "tank" and the leak detection system is an administrative control system that provides the operator feedback on how well the leak prevention system is operating.

The second plastic liner, with its low-permeability sub-base, is the secondary containment that is assumed to be adequately protective of the underlying soils and groundwater, providing the leakage through the uppermost liner is acceptably minimized.

7. Cyanide Application By Drip Nozzles

Purpose: To minimize contact with chemicals by wildlife.

Required: Installation of a drip application system that will present no available free liquid to wildlife. The leach heap must also be designed so there is no ponding of cyanide around the edges or in collection structures.

8. Minimum Solution Depth (Head) In The heap

Purpose: To reduce the potential (liquid pressure) for the development of liner leaks and to reduce the leak rate of a leak once it has developed.

Required: Installation of leachate drainage pipes above the top liner designed to minimize leachate head. The leach heap should not be designed to store leachate; leachate storage should be accommodated in the design of the pregnant and barren ponds.

9. Secondary Containment Of Piping

Purpose: To detect and catch leaks from chemical transfer piping.

Required: Installation of impermeable secondary containment of all piping, pumps, tanks and other equipment that contain processing chemicals.

10. Between-Liner Leak Detection

Purpose: To detect and locate, as quickly as possible, leaks that develop in the uppermost leak-prevention liner.

Required: A positive system of leak detection installed below the uppermost liner, that will respond quickly to a leak and provide information on the magnitude and location of the leak. One method of leak detection utilizes plastic piping arranged in a grid or "chevron" pattern to convey leakage to a sampling sump where the leakage can be caught and analyzed.

11. Vadose Leak Detection Under the Heap

Purpose: To provide a second system of leak detection that will determine if solutions are escaping the bottom-most leak-prevention liner and entering the vadose (or unsaturated) soil zone.

Required: A positive system of leak detection installed in the vadose zone under the lowest liner that will respond quickly to a leak and provide information on the magnitude and location of the leak.

This requirement may be waived in some situations where either the risk of leakage can be shown to be low or it can be demonstrated that there would be insignificant adverse effect if vadose leakage occurred.

12. Groundwater Monitoring Wells

Purpose: To monitor groundwater in the uppermost aquifer for evidence of contamination from heap leaks.

Required: A minimum of two down-gradient and one up-gradient (background) monitoring wells installed in the first aquifer that will detect groundwater contamination caused by longer-term leakage of the leach heap.

13. Limit on Uppermost Liner Leak Rate

Purpose: Liners, no matter how carefully specified and installed are likely to leak to some degree. In recognition of the likelihood of small leaks, a de-minimis, permitted leak rate in the uppermost liner may be defined for compliance purposes. Leak rates less than the de-minimis level would not be cause for action but leak rates above this level would be.

Required: The maximum allowed uppermost liner leak rate is 30 gallons per day, per acre; this rate is taken to be the minimum leak rate of well-installed plastic liners. Leaks causing leakage rates greater than 30 gallons per day per acre must be isolated and repaired or cyanide application must be reduced or eliminated in the area of the leak until the leak rate is reduced to 30 gallons per day per acre

14. Cellular Leak Isolation and Repair

Purpose: To minimize leakage by isolating and repair leaks as they are detected.

Required: Means must be installed to allow local unloading of ore for repair of leaks, if they develop. Additionally, the cyanide application system should be divided so solution application can be discontinued in an area where a leak has been detected to prevent further leakage until the leak is repaired.

15. Operating Procedures For Temporary Shutdown

Purpose: Establishment of administrative control procedures that will minimize the risk of toxics release to the environment during periods of temporary shutdown (such as winter-time shutdown).

Required: Permittee must submit a control plan for Department approval for each shutdown of greater than 30-days' duration. At a minimum, the plan must provide for drain-down of the heap and disposition of excess leach solution so as to provide sufficient storage capacity for stormwater.

16. Cyanide Detoxification At Closure

Purpose: To remove free and WAD cyanide from the pore water of the heap and leave cyanide-complex compounds in the least-toxic, least-leachable state possible.

Required: Rinsing of the heap prior to closure must be continued until the rinsate and the leached ore meets the residual WAD and soluble and total Cyanide criteria.

It is anticipated that external cyanide recovery/detoxification means may be required to achieve the residual cyanide concentration criteria. Available cyanide recovery technology includes acidification and volatilization (AVR process), ion exchange and electrolysis. Chemical oxidation technology includes the Inco SO₂/Air process, alkaline chlorination and hydrogen peroxide.

17. Cyanide Closure Criteria For Rinsate And Spent-ore Solids

Purpose: To provide a performance standard that will determine when the heap has been detoxified sufficiently to be closed.

Required: WAD cyanide concentration in the heap rinsate must be equal to or less than 0.2 mg/l, on a sustained basis, and the spent-ore solids must meet the following criteria:

Soluble WAD Cyanide	0.5	mg/kg
Soluble Total "	2.5	"
Total Insoluble "	10.0	"

(Test definitions and procedures are in Appendix A)

Rinsing must be continued long enough (with pauses between rinse campaigns) to demonstrate that the rinsate and the spent ore have reached a stable, or "equilibrium" WAD cyanide concentration that meets the criteria.

18. Evaluation Of Long-Term Spent-Ore Leach Risk

Purpose: To assess whether, because of such factors as a high residual content of toxic chemicals in the spent heap, or the existence of critical surface or groundwater conditions, the heap would, in the long term, be expected to release pollutants after closure.

Required: Permittee must perform a risk assessment, based on such factors as the "leachability" of the spent ore, the proximity of surfacewater and groundwater, and the condition of the liners and their past history of leaks, of the adverse impact of future release of pollutants.

19. Clay/Soil And/Or Plastic Top Cover

Purpose: To prevent leaching of pollutants from the spent ore after closure of the heap.

Required: Installation of a clay/soil and/or plastic top cover designed to prevent water from percolating through and leaching pollutants from the spent ore.

This requirement may be waived if the permittee can demonstrate to the Department that the risk of adverse impact by pollutant leaching is low. The required reclamation will provide some degree of cover for the heap, but because of a typical lack of available topsoil and the relatively high water permeability of an active root zone, re-vegetation in itself is not considered to be a seal against water percolation.

20. Soil/Vegetation Reclamation At Closure

Purpose: To further assist in reducing water percolation through the heap and minimize potential for water erosion of the surface.

Required: A viable cover of soil and vegetation that will sustain itself over time and add to stability of the heap.

It is anticipated that this requirement will normally be met by the requirements of the DOGAMI reclamation plan. However, because the heap cover is an added safeguard against water transport of residual pollutants out of the heap, the Department will specifically review the reclamation requirements.

21. Adequate Reclamation/Chemical Processing Bonds

Purpose: To require maximum assurance that sufficient financial resources will be available to properly decommission and reclaim an abandoned heapleach operation.

Required: Applicant must post bonds in amount sufficient to remediate potential groundwater/soils contamination, close the leach heap and provide post-closure leachate treatment, if necessary.

22. Thirty Year Post-Closure Monitoring

Purpose: To continue monitoring the closed heapleach operation for evidence of pollutant release.

Required: The permit will be continued in force for a nominal period of thirty years after closure of the operation and will include appropriate monitoring requirements to determine if non-permitted release of pollutants is occurring.

23. Five-year decision intervals for releasing chemical-processing bond.

Purpose: To review monitoring data every five years and determine the effectiveness of closure of the heapleach operation before a decision is made to release bond funds that would otherwise be needed to correct problems resulting from ineffective closure.

Required: DOGAMI reclamation plan will require retention of sufficient reclamation bonding during the thirty-years' monitoring period to correct any developing closure problems.

The portion of the bonding to be retained at the end of each five-year review period will be reviewed by the Department.

24. Oregon Water-Pollution Control Facility Tax Credit

Purpose: To offset the cost of water-pollution control measures.

Water-pollution control measures may be eligible for Oregon tax credit. Such measures for heapleach ore processing may include monitoring wells, second liners under pads, leak-detection and warning systems and secondary containment structures under chemical storage and piping.

Required: Final application for tax-credit certification due within two years of completion of the project.

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POTENTIAL REQUIREMENTS FOR HEAP-LEACH ORE PROCESSING

Pregnant and Barren Solution Ponds

The following technical and administrative control requirements apply to the pregnant and barren solution ponds used for processing metal ores with toxic lixivants by the method known as "heap-leaching".

LISTING OF POTENTIAL REQUIREMENTS

1. Surfacewater/Groundwater Siting Study
2. Stormwater Diversion Away from Processing Areas
3. Perimeter Animal Fence Around Processing Areas
4. Bird-Net Cover Over Ponds
5. Seismic/Gravity Stability Design of Dams
6. Compacted Clay/Soil Sub-base Under Liners
7. Plastic Liners Under Ponds
8. Minimization of Pond Volume
9. Between-Liner Leak Detection
10. Vadose Leak Detection Under Ponds
11. Groundwater Monitoring Wells
12. Immediate Repair of Any Detected Leak
13. Emergency Spill/Overflow Pond (Optional)
14. Treatment of Barren Bleed Before Discharge
15. Sludge Removal/Disposal at Closure
16. Liner Coverage at Closure
17. Oregon Water-Polution Control Facility Tax Credit

DESCRIPTION OF POTENTIAL REQUIREMENTS

1. Surfacewater/Groundwater Siting Study

Purpose: To characterize existing surfacewater and groundwater quantity, quality and mobility and to assess potential impact of the proposed mining operation.

Required: Applicant must submit results of a study which assesses both macro (whole project) and micro (chemical processing areas) impact.

Leach heaps, pregnant and barren ponds should not be sited where leakage would reach vulnerable or critical groundwater, or over surfacewater drainages.

It is anticipated that the hydrological study will be accomplished in the baseline study portion of DOGAMI's operating permit for the project.

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2. Stormwater Diversion Away from Processing Areas

Purpose: To prevent flooding or erosion of the ponds, with resulting contamination of stormwater.

Required: Construction of ditches and diversion structures above the ponds that will divert a 100-year, 24-hr storm (or any other defined storm event that is more appropriate to the area). Accumulated snow must be taken into account.

3. Perimeter Animal Fence Around Processing Areas

Purpose: To prevent poisoning or drowning of wildlife.

Required: Chain-link (or equivalent) fencing that will exclude the majority of animals (except, perhaps, burrowing animals), that will be properly maintained during the life of the project.

4. Bird-Net Cover Over Ponds

Purpose: To prevent poisoning of birds.

Required: Netting erected over all ponds containing cyanide or other toxic processing solutions. The net mesh opening must be a maximum of 2 inches; smaller if ice and snow build-up is not a problem. The Department will consider a floating cover as an alternate to netting.

5. Seismic/Gravity Stability Design of Dams

Purpose: To prevent foreseeable structural failures of the pregnant and barren pond retaining structures.

Required: Professional stability analysis and design of all retaining structures, including seismic requirements, where applicable.

6. Compacted Clay/Soil Sub-base Under Liners

Purpose: To provide a low-permeability, structurally stable base for the ponds that will prevent subsidence, prevent puncture of the plastic liner by rocks and act as an additional seal against leakage of chemicals through the lower-most pond plastic liner.

Required: An engineered sub-base constructed of a minimum of 12 inches of optimally-compacted natural or amended soil having a demonstrated maximum water permeability of 1×10^{-7} cm/sec. The sub-base must be designed to provide stable structural support for the maximum pond load.

Results of field tests of the sub-base for permeability and thickness must be submitted to the Department for review.

7. Plastic Liners Under Ponds

Purpose: To provide a positive chemical leak barrier between the heap and the environment and to confine liner leakage for collection and analysis.

Required: Professionally installed double plastic liners that will retain their integrity through the life of the project. High-density polyethylene (HDPE) at least 60-mil thick is generally preferred, although other materials and thicknesses may be accepted. The two plastic liners may be separated with geofabric, geonet or other suitable material that will provide effective leak detection.

Results of field tests of liner integrity must be submitted to the Department for review.

Rationale: The uppermost plastic liner, with its underlying leak detection system is intended to be the primary leak prevention system. By analogy, this uppermost liner is the bottom of the processing "tank" and the leak detection system is an administrative control system that provides the operator feedback on how well the leak prevention system is operating and when repair is necessary.

The second plastic liner, with its low-permeability sub-base, is the secondary containment that is assumed to be adequately protective of the underlying soils and groundwater, providing the leakage through the uppermost liner is minimal.

8. Minimization of Pond Volume

Purpose: To minimize leak potential by minimizing the volume of solution stored in ponds.

Required: Ponds shall be as small as possible, yet still meet the liquid storage requirements of the process water balance.

Since the leak potential of the ponds increases both with increasing hydraulic pressure (head) and increasing pond area, no arbitrary upper limits are placed on either pond head or area, for a given pond volume.

Enclosed tanks should be considered as an alternate to open ponds.

9. Between-Liner Leak Detection

Purpose: To detect and locate, as quickly as possible, leaks that develop in the uppermost leak-prevention liner.

Required: A positive system of leak detection installed below the first liner that will respond quickly to a leak and provide information on the magnitude of the leak.

10. Vadose Leak Detection Under Ponds

Purpose: To provide a second system of leak detection that will determine if solutions are escaping the bottom-most leak-prevention liner and entering the vadose (or unsaturated) groundwater zone.

Required: Not required for the ponds.

Rationale--The ponds are required to be essentially leak-free. A leaking pond must be immediately drained and the leak repaired before operation may be continued. Thus, the potential for any significant leakage to the ground should be satisfactorily minimized and vadose monitoring may not be necessary.

11. Groundwater Monitoring Wells

Purpose: To monitor groundwater for evidence of contamination from leaks.

Required: A minimum of two down-gradient and one up-gradient (background) monitoring wells installed in the uppermost aquifer, that will detect groundwater contamination caused by leakage from the ponds.

12. Immediate Repair of Any Detected Leak

Purpose: To prevent leakage to the ground from the ponds.

Required: Immediate removal of solution from a leaking pond and repair of the leak before re-filling. The effectiveness of the repair must be tested with clean water before re-filling with solution.

Rationale: Leaks in ponds cannot be isolated from solution application as a means of minimizing leakage, as can a leak in a leach pad. Leakage rate can be minimized by reduction of solution depth (head) but repair of the leak is the appropriate remedial action.

13. Emergency Spill/Overflow Pond (Optional)

Purpose: To provide emergency capacity to accept storm events greater than anticipated or to accept the solution from a leaking pond that must be drained for repair.

Required: Installation of an emergency pond large enough to accept the volume of solution that would have to be drained from a leaking pond. The leak-prevention liner could be a composite liner (clay/soil sub-base of 10^{-5} cm/sec and a single plastic liner) and between-liner or vadose-zone leak detection would not be required. The leak-tightness of the pond must be checked with clean water by measuring the water level for a period of time.

Rationale: Use of a spill pond for temporary storage might be advantageous because it could allow reduction in size of the pregnant or barren ponds. It is assumed that the emergency pond would be used only rarely, and then for relatively short periods of time. Risk of leakage would be thus be minimized and construction requirements for the spill pond might be reduced.

14. Barren Bleed Treatment Before Discharge

Purpose: To remove or reduce toxic pollutants from barren bleed discharge (if bleed is necessary).

Required: To install wastewater treatment facilities that will reduce barren bleed effluent toxicity to a level that will meet water-quality standards in the receiving stream or will meet land-application guidelines if the effluent is land applied.

15. Sludge Removal/Disposal at Closure

Purpose: To remove residual toxic materials from the ponds prior to pond closure and properly dispose of them.

Required: The residual sludge must be tested for toxicity with the EPA TLCP procedure (Toxic Leach Characteristic Procedure). If the sludge fails the criteria, the sludge must be disposed of as a hazardous waste. If the sludge passes the criteria and operations allow, the sludge may be spread on top of the leach heap and detoxified with the heap. The Department will also review alternative proposals for sludge disposal.

16. Liner Coverage at Closure

Purpose: To minimize potential environmental impact (primarily aesthetic) of liner material after heap and pond closure.

Required: Exposed liner around the edges of the heap and the liners of the ponds must be folded in and covered with soil at closure.

It is anticipated that coverage of the liners and re-vegetation would normally be done as part of the reclamation process and would be specified in the DOGAMI reclamation plan for the project.

17. Oregon Water-Pollution Control Facility Tax Credit

Purpose: To offset the cost of water-pollution control measures.

Water-pollution control measures might be eligible for Oregon tax credit. Such measures for heapleach ore processing might include monitoring wells, second liners under ponds and pads, leak-detection and warning systems and secondary containment structures under chemical storage and piping.

Required: Final application for tax-credit certification due within two years of completion of the project.

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POTENTIAL REQUIREMENTS FOR METALS-ORE MILL TAILINGS DISPOSAL

Tailings Disposal Facility

The following technical and administrative control requirements apply to disposal of mill tailings produced from processing of metals ores with toxic chemicals.

TOXICITY ELIMINATION TECHNOLOGY

The Department recommends that preventive, toxicity elimination treatment be required of mines that must dispose of mill tailings. The rationale behind requiring toxicity elimination measures is simply that it is more protective to not discharge toxic materials in the first place than to use after-the-fact protective measures to mitigate the impact.

Toxicity elimination treatment technology is available to the industry. Technology is available to recover cyanide and return it to the process for re-use, and to remove toxic metals and acid-forming sulfide minerals from the tailings prior to their discharge. Toxicity-elimination treatment can be applied end-of-pipe or in-process. Tailings can also be washed and dewatered, producing a damp product that could be "dry stacked", thus eliminating a "pond".

Past practice in the mining industry has been to discharge mill tailings slurries containing cyanide and other processing chemicals to a pond and essentially abandon them, leaving the toxicity problems behind.

Current practice is to attempt to avoid toxicity problems by containment, exclusion and chemical oxidation techniques such as sealing the pond bottoms and sides, discouraging or excluding birds and other wildlife, enhancing natural degradation of some of the cyanide and collecting seepage/drainage from the pond for chemical detoxification.

Reducing the toxicity of tailings through toxicity-elimination treatment prior to disposal should provide potentially significant cost-reducing trade-offs, particularly in the number and type of liners required under the tailings disposal facility. Tailings that have been treated to remove cyanide and toxic metals prior to disposal could potentially require little further attention, except for their long-term potential for acid-water generation. If the acid-generating sulfide minerals were satisfactorily removed, the tailings could be disposed of with few protective requirements.

TOXICITY ELIMINATION REQUIREMENT

The permittee should be required to apply toxicity-elimination treatment to minimize the toxicity of the tailings. Cost is probably the major consideration in implementation of toxicity-elimination treatment, so an evaluation process and criteria would be needed determining economic feasibility.

SITE-SPECIFIC CONSIDERATIONS

Each mining operation has its own site-specific characteristics that can work for and against environmental protection. Examples are proximity to surface water and groundwater, nature of the terrain, permeability of the underlying soils, availability of operating space and chemical make-up of the processing solutions and ores.

All of these site-specific factors must be taken into consideration in the design of the final facility; some will require greater protective measures and some could allow lesser measures. The proper balancing of site-specific factors against desired protective requirements will be a major challenge for the permittee and the Department.

ASSUMPTIONS

The following potential control requirements are based on the following assumptions:

- o The mill tailings have been sufficiently treated so that they contain a minimum of available cyanide and leachable toxic metals but still contain acid-generating sulfides.
- o The tailings are placed with water as a slurry.
- o The primary long-term potential environmental hazard is assumed to be acid-water generation by sulfide minerals contained in the tailings.
- o Contamination of soil under and around the disposal facility by toxic materials is to be prevented.

Alternative requirements are noted that could apply to the situation where sulfide minerals are removed and the tailings are dry-stacked, rather than deposited as a slurry.

LISTING OF POTENTIAL REQUIREMENTS

1. Surface Water/Groundwater Siting Study
2. Stormwater Diversion Away from the Disposal Facility
3. Perimeter Animal Fence Around the Disposal Facility
4. Seismic/Gravity Stability Design

5. Compacted Clay/Soil Sub-base Under Liner
6. Plastic Liner
7. Minimum Solution Depth in the Disposal Facility
8. Leachate Collection/Reuse System
9. Secondary Containment of Piping
10. Groundwater Monitoring Wells
11. Operating Procedures For Temporary Shutdown
12. Evaluation/Correction of Acid-Water Generation Potential
13. Evaluation of Need for Post-Closure Leachate Treatment
14. Clay/Soil And/Or Plastic Top Cover at Closure
15. Soil/Vegetation Reclamation At Closure
16. Adequate Reclamation/Chemical Processing Bonds
17. Thirty-Year Post-Closure Monitoring
18. Five-Year Decision Intervals For Releasing Chemical-Processing Bond

DESCRIPTION OF POTENTIAL REQUIREMENTS

1. Surface Water/Groundwater Siting Study

Purpose: To characterize existing surfacewater and groundwater quantity, quality and mobility and to assess potential environmental impact of the proposed tailings disposal methods.

Required: A full study which assesses the relationship of the project to surface water and groundwater. Analysis must include characterization of quantity and quality of surface water and groundwater and how the water might be affected by the project. Surface water hydrology must also be included to assess the effect of storm water run-off on the project.

Rationale: Facilities that are sited where toxic leakage could affect particularly vulnerable or critical surface water or groundwater may require special protective measures to be environmentally acceptable.

It is anticipated that most of the surface water/groundwater study will be accomplished in the baseline study portion of DOGAMI's operating permit for the project.

2. Stormwater Diversion Away from the Disposal Facility

Purpose: To prevent flooding and erosion of the disposal facility and contamination of stormwater.

Required: Construction of ditches and diversion structures above the disposal facility that will divert a 100-year, 24-hr storm (or any other defined storm event that is more appropriate to the area). Snow accumulation must also be taken into account.

Alternative: Stormwater diversion is critical if the disposal facility is a pond and contains sulfides. Less stringent diversion measures might be possible if tailings are dry-stacked sulfides have been removed and reclamation is sufficient to prevent erosion.

3. Perimeter Animal Fence Around the Disposal Facility

Purpose: To prevent entrapment of wildlife.

Required: If the tailings are slurry deposited so that animals could become mired or trapped in the pond, chain-link (or equivalent) fencing that will exclude the majority of animals that will be properly maintained during the life of the project, will be required.

Alternative: Dry-stacked tailings would probably not require a fence.

4. Seismic/Gravity Stability Design

Purpose: To prevent foreseeable structural failures of the disposal facility's retaining structures.

Required: Professional stability analysis and design of all retaining structures, including seismic requirements, where applicable.

5. Compacted Clay/Soil Sub-base Under Liner

Purpose: To provide a low-permeability, structurally-stable base for the disposal facility that will prevent subsidence, prevent puncture of the plastic liner (if required) by rocks and act as an additional seal against leakage of chemicals.

Required: An engineered sub-base, a minimum of 12 inches thick, that will provide stable structural support for the disposal facility's loads and will have a demonstrated minimum water permeability of 1×10^{-7} cm/sec. Soil amendments used must be compatible with the chemistry of the tailings slurry.

Alternative: Requirement could probably be eliminated or reduced if acid-generating potential was low.

6. Plastic Liner

Purpose: To provide a positive chemical leak barrier between the disposal facility and the environment and to confine liner leakage for collection and analysis.

Required: Professionally-installed single plastic liner of impermeable material that will retain its integrity through the life of the project with a leachate collection system installed above it. High-density polyethylene (HDPE) at least 60-mil thick is generally preferred for the liner, although other materials and thicknesses may be accepted. Results of field tests of liner integrity must be submitted to the Department for review.

Rationale: A plastic liner is required for positive containment and collection of leachate water during the life of the project. Upon closure, the leachate collection system could be sealed and the liner used to trap infiltration water to submerge the sulfides in a low oxygen environment and thus help prevent oxidation.

Alternative: The plastic liner could be eliminated if the permittee could demonstrate that residual toxicity and acid-generation potential are very low.

7. Minimum Solution Depth In The Disposal Facility

Purpose: To reduce the potential (liquid pressure) for the development of liner leaks and to reduce the leak rate of a leak once it has developed.

Required: Installation of leachate drainage pipes above the top liner, designed to minimize leachate head. The disposal facility should not be designed to store leachate; leachate storage must be accommodated in the design of the pregnant and barren ponds.

Rationale: Leakage through holes in liners can be minimized by keeping the leachate head above the liner as small as possible.

Alternative: This requirement could be eliminated if adequate toxicity-elimination treatment of the tailings is provided.

8. Leachate Collection/Reuse System

Purpose: To remove stored liquid in the disposal facility and, if necessary, to collect and treat acid water that might be generated.

Required: Installation of leachate drainage pipes above the top liner, designed to collect the leachate for reuse or further detoxification.

9. Secondary Containment Of Piping

Purpose: To detect and catch toxic leaks from chemical transfer piping.

Required: Installation of impermeable secondary containment of all piping, pumps, tanks and other equipment that contain toxic tailings slurry.

Alternative: Not required if toxicity is satisfactorily removed from the tailings slurry.

10. Groundwater Monitoring Wells

Purpose: To monitor groundwater in the uppermost aquifer for evidence of contamination from leaks.

Required: A minimum of two down-gradient and one up-gradient (background) monitoring wells installed in the first aquifer that will detect groundwater contamination caused by longer-term leakage of the disposal facility.

11. Operating Procedures For Temporary Shutdown

Purpose: Establishment of administrative control procedures that will minimize the risk of toxics release to the environment during periods of temporary shutdown (such as winter-time shutdown).

Required: Permittee must submit a control plan for Department approval for each shutdown of greater than 30-days' duration.

12. Evaluation/Correction of Acid-Water Generation Potential

Purpose: To determine the potential for generation of acid water and release of toxic metals by the tailings.

Required: Permittee must conduct appropriate chemical analyses and leach tests of the tailings to determine the potential for generation of acid water. Addition of basic materials to the tailings might be required to provide neutralization.

13. Evaluation of Need for Post-Closure Leachate Treatment

Purpose: To determine whether leachate is expected from the closed disposal facility and how it might have to be treated after closure.

Required: Permittee must assess the potential for infiltration of surfacewater and groundwater that could discharge acidic leachate.

14. Clay/Soil And/Or Plastic Top Cover at Closure

Purpose: To prevent leaching of pollutants from the spent ore after closure of the pond by infiltration of surfacewater.

Required: Installation of a clay/soil and/or plastic top cover composite designed to prevent water from percolating through and leaching pollutants from the spent ore.

Alternative: This requirement may be waived if the permittee can demonstrate to the Department that the risk of adverse impact by pollutant leaching is low. The required reclamation will provide some degree of cover for the disposal facility, but because of a lack of available topsoil in many mining areas and the relatively high water permeability of a an active root zone, re-vegetation in itself is not considered to be a seal against water percolation.

15. Soil/Vegetation Reclamation At Closure

Purpose: To further assist in reducing water percolation through the disposal facility and minimize potential for water erosion of the surface.

Required: A viable cover of soil and vegetation that will sustain itself over time.

It is anticipated that this requirement will normally be met by the requirements of the DOGAMI reclamation plan. However, because the disposal facility cover is an added safeguard against water transport of residual pollutants out of the facility, the Department will specifically review the reclamation requirements from a water-quality standpoint.

16. Adequate Reclamation/Chemical Processing Bonds

Purpose: To be assured that sufficient financial resources will be available to properly decommission and reclaim an abandoned disposal facility.

Required: Applicant must post bonds in amount sufficient to remediate potential groundwater/soils contamination, close the disposal facility and provide post-closure leachate treatment and monitoring, if necessary.

Rationale: DOGAMI, rather than the Department has bonding authority; thus the Department, in cooperation with DOGAMI, relies on them to set appropriate bonding amounts.

17. Thirty-Year Post-Closure Monitoring

Purpose: To continue monitoring the closed tailings pond for evidence of pollutant release.

Required: The water-quality permit will be continued in force for a nominal period of thirty years after closure of the operation and will include appropriate monitoring requirements to determine if non-permitted release of pollutants is occurring.

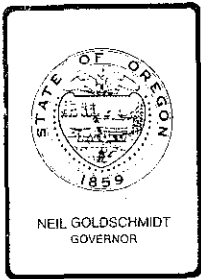
18. Five-year decision intervals for releasing chemical-processing bond.

Purpose: To review monitoring data every five years and determine the effectiveness of closure of the disposal facility before DOGAMI releases bond funds that would otherwise be needed to correct problems resulting from ineffective closure.

Required: DOGAMI reclamation plan should require retention of sufficient bonding during the thirty-years' monitoring period to correct any developing closure problems.

The portion of the bonding to be retained at the end of each five-year review period should be reviewed with DOGAMI by the Department.

JET
Cyanara.41
11/26/90



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

INFORMATION REQUEST FOR EQC DISCUSSION

Meeting Date: 12/13/90
Agenda Item: 0
Division: Water Quality
Section: Standards & Assessments

SUBJECT:

Status report on the Establishment of Total Maximum Daily Loads (TMDLs)

PURPOSE:

The purpose of this report is to review with the Environmental Quality Commission (Commission):

1. The Department of Environmental Quality (Department, DEQ) TMDL program efforts to date, future TMDL workload, strategy for continuing the TMDL program, and the proposed decision package to support TMDL activity in the next biennium.
2. The TMDL actions for the Columbia Slough and to seek Commission guidance on specific policy issues associated with these actions,
3. The TMDL actions and approach for the Pudding River,

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
- | | |
|--------------------------------------|------------------------|
| Proposed Rules | Attachment <u> </u> |
| Rulemaking Statements | Attachment <u> </u> |
| Fiscal and Economic Impact Statement | Attachment <u> </u> |

- | | | |
|---------------------------------------|------------|-----|
| Public Notice | Attachment | ___ |
| ___ Issue a Contested Case Order | | |
| ___ Approve a Stipulated Order | | |
| ___ Enter an Order | | |
| Proposed Order | Attachment | ___ |
| ___ Approve Department Recommendation | | |
| ___ Variance Request | Attachment | ___ |
| ___ Exception to Rule | Attachment | ___ |
| X Informational Report | Attachment | ___ |
| ___ Other: (specify) | Attachment | ___ |

DESCRIPTION OF REQUESTED ACTION:

This is an informational report, no formal action is requested. The Department would like guidance from the Commission, however, on several policy issues identified here and listed under "Issues for the Commission to Resolve."

The Department is required through a Federal District Court Consent Decree to develop two TMDLs each calendar year. The two water quality limited receiving streams for which TMDLs are being developed this year are the Pudding River and the Columbia Slough.

1. TMDL PROGRAM

The Department has been conducting TMDL work for three years. This report provides a general description of the process, a status of the actions taken (Attachment A) and an identification of some of the problems encountered.

Future TMDL strategy

The Department would like guidance from the Commission on a realistic strategy and schedule for future TMDL establishment and implementation. This will include a discussion of:

- a streamlined TMDL process which reduces Commission involvement and staff workload,
- resource requirements and funding sources,
- the consequences of not meeting the consent order schedule.

Proposed TMDL budget

The Department will review with the Commission the TMDL Decision Package currently proposed to the Legislature for the 1991-93 biennium. See Attachment F for a description of the decision package.

2. TMDL ACTIONS FOR THE COLUMBIA SLOUGH

Attachments B, C, and D provide a detailed description of the development of TMDLs for the Columbia Slough and the alternatives and policy issues related to the TMDLs for bacteria, nuisance algal growth and toxins. Below is a summary of the policy issues.

- Should preliminary TMDLs be used to identify time frames for the Department and sources to gather the information to establish final TMDLs? (see Attachments B, C & D)

- Is seasonal application of the bacteria standard appropriate; should exemptions from the standard be allowed for specified frequencies and durations during certain hydrologic conditions as identified in a management plan for the Columbia Slough? (see Attachment B)

- Should the Department proceed with the development of TMDLs for toxins with the limited data currently available? (see Attachment D)

3. TMDL ACTIONS FOR THE PUDDING RIVER

Attachment E is a report on TMDL development and alternatives for the Pudding River. The report format is the model the Department will use for future TMDL background reports. Policy issues include:

- Should the Department use a streamlined process to establish TMDLs which would eliminate rulemaking where no new instream water quality criteria are needed and the TMDL can be implemented through permit modification and memoranda of agreement?

- Should the Department establish WLAs and require facilities planning to be initiated when we are proposing to change the standard on which the allocation

is based? The Department is proposing to change the dissolved oxygen standards which would affect the wasteload allocations given to the point sources discharging to the Pudding River.

AUTHORITY/NEED FOR ACTION:

- | | |
|--|------------------|
| <input type="checkbox"/> Required by Statute: _____ | Attachment _____ |
| Enactment Date: _____ | |
| <input type="checkbox"/> Statutory Authority: _____ | Attachment _____ |
| <input type="checkbox"/> Pursuant to Rule: _____ | Attachment _____ |
| <input checked="" type="checkbox"/> Pursuant to Federal Law/Rule: <u>CWA</u> | Attachment _____ |
| <input type="checkbox"/> Other: _____ | Attachment _____ |
| <input checked="" type="checkbox"/> Time Constraints: (explain) | |

The staff time required to complete all the identified activities under the TMDL program is growing rapidly. It is a complete misnomer to say that the Department is working on only two TMDLs per year. For example, the TMDL for the Tualatin was established in 1988 and yet the Department put considerable time and effort into this program throughout fiscal year 89-90 to review program plans and this effort will continue into the 1991-93 biennium as well.

DEVELOPMENTAL BACKGROUND:

- | | |
|---|---------------------|
| <input type="checkbox"/> Advisory Committee Report/Recommendation | Attachment _____ |
| <input type="checkbox"/> Hearing Officer's Report/Recommendations | Attachment _____ |
| <input type="checkbox"/> Response to Testimony/Comments | Attachment _____ |
| <input type="checkbox"/> Prior EQC Agenda Items: (list) | Attachment _____ |
| <input type="checkbox"/> Other Related Reports/Rules/Statutes: | Attachment _____ |
| <input checked="" type="checkbox"/> Supplemental Background Information | |
| TMDL Program Description & Status Table | Attachment <u>A</u> |
| Columbia Slough TMDL for Bacterial Pollution | Attachment <u>B</u> |
| Columbia Slough - Algal Growth TMDL | Attachment <u>C</u> |
| Columbia Slough - Toxin TMDL | Attachment <u>D</u> |
| Pudding River TMDL Report | Attachment <u>E</u> |
| Decision Package #103 | Attachment <u>F</u> |

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

1. SUMMARY OF THE DEPARTMENT'S TMDL PROGRAM

The regulated community subject to TMDL requirements includes private industrial dischargers, municipal wastewater treatment facilities, state agricultural and forest land management agencies and private landowners, and cities and counties (for urban runoff). These parties are generally given a load or wasteload allocation, a requirement to develop a program or facilities plan, and a timeline for implementation and compliance.

The Department expects that the needs and interests of the regulated parties, which we agree we should try to provide, include the following:

- timely and clear statements of the allocations, requirements and compliance dates that apply to them,
- technical assistance from the Department related to water quality data, available control technology or techniques, plan development, and funding mechanisms for implementation,
- the opportunity to participate meaningfully in the process through a public involvement program, and
- financial assistance to accomplish their responsibilities, particularly the local governments.

2. TMDL ACTION FOR THE COLUMBIA SLOUGH

The Columbia Slough TMDL will directly influence the costs and efforts associated with:

1. The City of Portland's CSO control program, required for compliance with NPDES permits.
2. The City of Portland's stormwater control program anticipated under new EPA regulations.
3. The closure permit for the Saint John's Landfill.

The costs of implementing a CSO and stormwater control strategy to achieve beneficial uses of the Columbia Slough are not well defined.

The City of Portland and Metro are working with the Department to continue to gather data and develop appropriate models so that final TMDLs can be established and incorporated into permits.

As the TMDL is further developed it will likely be necessary to include agricultural nonpoint source load allocations, and load allocations for communities, such as Gresham, that drain stormwater to the upper portions of the Slough.

There are many potential sources of toxins to the Columbia Slough which could be affected by a TMDL for toxins. The EPA has a list of 28 "potential superfund sites" in the basin, which includes most, if not all, of the sources permitted to discharge to the Slough.

3. TMDL ACTION FOR THE PUDDING RIVER

The regulated parties in the Pudding River basin identified to receive WLAs are the Woodburn sewage treatment plant and Agripac, Inc., a private industrial discharger (see Attachment E). The Department of Agriculture will be requested to develop a nonpoint source plan through a Memorandum of Agreement with the DEQ.

PROGRAM CONSIDERATIONS:

1. SUMMARY OF DEPARTMENT'S TMDL PROGRAM

The TMDL process for each river takes several years to complete, depending on the size and complexity of the river and the loads it receives. The work requires staff with various areas of expertise from several sections within the water quality division, including: Standards & Assessments, Industrial Wastewater, Municipal Wastewater, Surface Water (nonpoint source specialists), and Water Quality Monitoring (the lab).

The TMDL process involves several major steps which are described in Attachment A in more detail. Briefly, these steps include conducting an intensive water quality study, modeling, establishing the TMDLs and allocations, identifying implementation requirements and deadlines, and reviewing and approving program plans.

During the 1990 calendar year the Department has been involved in one or more of the above steps of TMDL establishment and implementation for the Tualatin River, Yamhill River, Bear Creek, Columbia Slough, Pudding River, Klamath River, Coquille River and Clear Lake. Soon staff will have to identify the next two TMDL streams, those to be established in 1992, in order to plan the water quality studies to be conducted during the 1991 field season.

Currently, the Department has approximately 7 staff, not including those from the lab, who spend part of their time on TMDL work to total approximately 3 full-time equivalent positions. The Department estimates that 5 additional full-time equivalent (FTE) positions at headquarters and 4 FTEs in the lab are needed to meet the consent order, do credible work and stay on schedule. This assumes we will continue to establish two new TMDLs per year, as well as follow through on the implementation of those already established.

Streamlined TMDL Process

A new TMDL process is proposed which will reduce staff workload demands by reducing the involvement of the Commission in each individual TMDL decision if it is not necessary. To date, TMDLs and implementation schedules have been established by rule, and program plans have been approved by the Commission. The new TMDL process would establish TMDLs and implementation schedules via permit modifications and memoranda of agreement, rather than through rulemaking. It would also allow Department staff to approve program plans.

The new procedure for establishing TMDLs without rulemaking will be applicable only under the following conditions:

- new instream water quality criteria are not required because existing standards are sufficient,
- WLAs can be implemented through permits, and
- load allocations (LAs) can be implemented through Memoranda of Agreement with Designated Management Agencies (DMAs).

The Department will establish an appeals procedure by which a regulated party that disagrees with a Department decision may bring their dispute to the Commission for resolution. The appeals procedure could apply to the decision on the TMDL and WLA/LAs, or to the approval or rejection of a program plan.

Consent Decree Schedule

As stated above, the Department is under consent order through the Environmental Protection Agency (EPA) to establish two TMDLs per year. If this schedule is not achieved, the litigants could hold EPA in contempt of court, which could, in turn, result in a new settlement.

One option may be that EPA take over responsibility for establishing TMDLs and allocations. Should this occur, however, DEQ would continue to be responsible for their implementation. The Department would maintain responsibility for permit modifications, planning assistance and program plan review, but would be implementing limits established by EPA rather than ourselves.

2. TMDL ACTION FOR THE COLUMBIA SLOUGH

Because of the complexity and lack of data and appropriate modeling, the Department does not feel confident setting final TMDLs for the Columbia Slough at this time. Rather, the Department proposes to establish preliminary TMDLs and continue working with the City of Portland and the Metropolitan Service District to finalize the TMDLs within the next year.

This approach adds some expectations to the program plans. It will also require additional Department staff time to review model development, review and select alternative TMDLs/WLAs, review program plans, write permits, and develop any necessary rules.

Another reason additional time is required to finalize the TMDLs is that a management plan for CSOs must be developed that will define the hydrologic conditions (frequency and durations) under which the bacteria criteria will not be achieved and beneficial uses will be impacted. These conditions will affect the TMDLs and wasteload allocations (WLAs).

The Department would like to use the new streamlined TMDL setting process for the Slough. This process will reduce staff workload. There will likely be an amendment to the instream bacteria standard proposed for the Slough, however, which will be brought before the Commission.

The Department needs to define best available technology and best practicable technology for CSO controls. This minimum level of technology will be required for all CSOs in

accordance with EPA's "National CSO Strategy." An additional level of control may be required to achieve WLAs. Then Department staff will need to develop and implement CSO permits.

For the toxins TMDL, the Department recognizes that the preliminary TMDLs are arbitrary and expects them to change as further information becomes available. The focus will be on permit requirements, including characterization of the discharge and the definition of an appropriate mixing zone by the permittees.

3. TMDL ACTION FOR THE PUDDING RIVER

TMDL Process

The Department proposes to reduce the resource demands on the Department for the Pudding River TMDL activity by using a new streamlined TMDL process outlined below. First, the Department suggests that the TMDLs and WLAs for the Pudding River not be established by rule. New rules are not required because existing water quality standards for dissolved oxygen are sufficient.

The Department feels that the implementation of the TMDLs can be accomplished via permit modification for the two point source dischargers, and a Memorandum of Agreement with the Department of Agriculture for the agricultural nonpoint sources. A rule requiring the development of program plans is not necessary, assuming the Department of Agriculture will enter into such an agreement with DEQ voluntarily.

Second, the Department proposes that Department staff, rather than the Commission, review and approve program plans. The new TMDL process will include a procedure by which a dissatisfied regulated party may appeal a Department decision before the Commission.

Dissolved Oxygen Standard

As part of the standards review currently in progress, the Commission may decide to change the dissolved oxygen standard within the next few months. If the Department continues with final determinations and distribution of allocations now, based on the current DO standard and the standard changes as proposed, additional staff time will be required to recalculate and distribute the new allocations. If this course of action is pursued, the point source dischargers should not be required to complete their

facilities plans until a decision on the standard has been made and final allocations have been altered or confirmed.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. FUTURE TMDL STRATEGY AND PROPOSED BUDGET

a. Discontinue TMDL establishment, returning this portion of the program to EPA.

If this alternative is selected, the EPA would establish the TMDLs and WLA/LAs, but the Department would continue to be responsible for implementation of the EPA limits.

b. Reduce TMDL activity - establish one new TMDL per year, continue implementation and monitor compliance.

c. Streamline TMDL process to reduce Commission involvement as described above.

d. Increase state funding support through proposed Decision Package #103.

2. TMDL ACTION FOR THE COLUMBIA SLOUGH

a. Advise EPA that the Department will complete the TMDL when we believe that the data and models to support them are available.

b. Develop preliminary TMDLs and allocations base on currently available information, and focus on a schedule of activities for finalizing and implementing the TMDLs. Rules would not be proposed until the TMDLs had been finalized.

c. For the toxins TMDLs/WLAs, either include new requirements in the discharge permits as they become due for renewal, or open all permits for revision at this time.

3. TMDL ACTION FOR THE PUDDING RIVER

See Attachment E, pp. 14-17 for numeric TMDL and allocation alternatives.

The alternatives considered for the process by which to establish TMDLs, allocations and implementation requirements include:

- a. Continue with past process to establish TMDLs, allocations and implementation schedule by rule, and require Commission approval of program plans.
- b. Use new, more efficient process whereby the Department establishes TMDLs, allocations and implementation requirements through permits and memoranda of agreement, and Department staff review and approve program plans.

The alternatives related to the DO standard are:

- a. Proceed with finalizing TMDLs and allocations based on existing DO standard and set timeline such that facility plans are not required until a decision is made on the standard and allocations are recalculated.
- b. Postpone selection of final TMDLs and allocations until a decision is made on the DO standard. This decision is anticipated within two to four months.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

1. FUTURE TMDL STRATEGY AND PROPOSED BUDGET

The Department's recommendation is to streamline the TMDL process, increase state funding, and continue to meet the consent order by establishing two new TMDLs per year.

At the present staff level, the Department can barely continue to establish one new TMDL per year (steps 1-5) and we will have to delay implementation. At the staff level proposed in Decision Package #103, we could continue to establish two new TMDLs per year (steps 1-5), but we will still be lacking adequate staff for timely plan review and implementation.

The Department proposes to postpone finalization of the Pudding River TMDL until a decision on the proposed DO standard has been made.

2. TMDL ACTION FOR THE COLUMBIA SLOUGH

The Department recommends that we pursue alternative b, the establishment of preliminary TMDLs at this time with refinement over the next year. This will initiate the

Meeting Date: December 13, 1991
Agenda Item: 0
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process of selecting and finalizing the TMDLs for the Columbia Slough and communicate some of the State's policies on the distribution of allocations and the management of the Slough.

The Department also recommends that we include new toxin limits according to WLAs as discharge permits become due for renewal rather than opening all permits for revision at this time. The reason for recommending this approach is the lack of resources available to complete all the permit modifications in the immediate future.

3. TMDL ACTION FOR THE PUDDING RIVER

The Department recommends alternative b, the use of the new streamlined process, for establishing and implementing TMDLs in the Pudding River. This basin is an appropriate case in which to try this new approach because no new instream criteria are required, and the TMDLs can be implemented through the revision of permits and agreements with other state agencies for the development of nonpoint source program plans.

Regarding the DO standard, the Department recommends alternative a. This will avoid any unnecessary expense by the point sources in the basin that may result by beginning their facilities plans and then having their allocations change. At the same time, it would allow the Department to meet its requirement to establish the TMDL this year.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Establishing TMDLs is an essential part of the strategic plan for water quality protection.

Water quality-based regulation through the TMDL process is the preferred way to ensure that the beneficial uses of all Oregon's waterways continue to be protected and instream water quality standards continue to be achieved.

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ISSUES FOR COMMISSION TO RESOLVE:

1. FUTURE TMDL STRATEGY AND PROPOSED BUDGET

a. Should the Department adopt the new TMDL process described above as standard procedure when the specified conditions are met?

b. Should the Department continue to attempt to establish 2 new TMDLs per year as required by court order and delay work on implementation and monitoring as necessary (this assumes passage of Decision Package 103)?

c. Should the Department continue to pursue passage of Decision Package #103 by the Legislature?

2. TMDL ACTION FOR THE COLUMBIA SLOUGH

a. Should the Department proceed with a preliminary TMDL for the Columbia Slough without formal Commission action, which will focus on defining a schedule of activities for finalizing the TMDL and allocations?

b. Is it acceptable to allow seasonal application of the bacteria standard, where exceedances of the criteria are expected to occur, according to a management plan (for specified times and hydrologic conditions).

3. TMDL ACTION FOR THE PUDDING RIVER

a. Should the Department use a new streamlined TMDL process which reduces staff resource demands by reducing Commission involvement in the process?

b. Should the Department finalize TMDLs and WLAs based on the existing DO standard or wait for a decision on the proposed change in the standard, anticipated in the next two to four months.

INTENDED FOLLOWUP ACTIONS:

- Proceed with actions recommended above for establishing and implementing TMDLs for the Columbia Slough and the Pudding River.

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- Pursue passage of Decision Package #103 by the 1991 Legislature.
- Use the streamlined TMDL process for all future water quality limited streams that meet the above stated prerequisites.
- Continue to attempt to meet consent order by establishing two new TMDLs per year for water quality limited rivers.

Approved:

Section: Neil Mullane
Division: Lydia Taylor
Director: Bill Hawes

Report Prepared By: Debra Sturdevant
Robert Baumgartner
Mary Halliburton
Neil Mullane

Phone: 229-5289

Date Prepared: November 27, 1991

DJS:djs

A DESCRIPTION AND STATUS REPORT OF THE DEPARTMENT
OF ENVIRONMENTAL QUALITY TMDL PROGRAM

INTRODUCTION

This report provides a description of the Department's TMDL program and the complete process of establishing and implementing a Total Maximum Daily Load (TMDL) for a water quality limited stream. In addition, Table 1 shows the status of each of the priority stream reaches identified to receive TMDLs.

A consent decree between the Environmental Protection Agency and the Northwest Environmental Defense Center requires that the Department establish two TMDLs each year. The process of establishing a TMDL for a particular stream reach, however, is not a one year process. In addition, the Department's work is not finished once the TMDL is established. The TMDL must be implemented so that instream standards are once again maintained and beneficial uses are protected. For these reasons, the Department is, at any given time, working on several TMDL projects that are at various stages of development and implementation.

Review of Commitment & Progress to Date

According to the Consent Decree, the Department is to establish two new TMDLs per year until they have been completed for all water quality limited water bodies in the state. We are currently in the third year of the TMDL program.

TMDLs have been established for three rivers (Tualatin, Yamhill and Bear Creek) and two lakes (Garrison and Clear Lakes). The two streams scheduled for 1990 are close to completion (Pudding River and the Columbia Slough). In addition, water quality studies for the two streams scheduled for 1991 (Klamath and Coquille Rivers) are in progress. A TMDL status table is provided below.

DESCRIPTION OF TMDL PROCESS

The water quality-based TMDL program has several key components and requires several years to complete. These components are listed below under a typical timeline scenario.

YEAR 1:

1. Assess the water quality limited receiving stream to determine standards violations, parameters for control, and pollution sources. This involves an intensive water

quality sampling effort for one field season to supplement ambient data and collect the data needed to model the river.

YEAR 2:

2. Determine the receiving stream's assimilative capacity and develop preliminary TMDLs using water quality model.
3. Allocate waste loads based on preliminary TMDLs.
4. Obtain authorization for rulemaking hearing to establish TMDLs and conduct a public hearing.
5. Propose adoption of rules by the Commission establishing TMDLs and a compliance schedule.

YEAR 3 - 4:

6. Provide guidance and technical assistance for plan development and review plans.
7. Request hearing authorization, conduct public hearing and request Commission approval of program plans.

YEAR 5:

8. Rewrite NPDES permits to contain WLAs as discharge limits.
9. Amend interagency nonpoint source agreements to modify action plans to implement program plans.

YEAR 6 - 8:

10. Monitor compliance and plan implementation.

Throughout this process, adjustments may need to be made to the TMDL, allocations or implementation schedule which may add to the staff time and resource demands of the Department. For example, if during the program planning process additional data is presented which demonstrate the need or ability to adjust the WLA/LAs this would require running the model with the new information to determine the appropriate allocations and then informing all affected parties of the change. Under the current process, a rule amendment may also be required.

Another example is the case where program plans are submitted that the Department and the Commission do not feel are adequate. In this case, the Department would work with the affected party

and then return to the Commission to request adoption of the revised plan.

THE REGULATED/AFFECTED COMMUNITY

The regulated community subject to TMDL requirements includes private industrial dischargers, municipal wastewater treatment facilities, state agricultural and forest land management agencies and private landowners, and cities and counties (for urban runoff). These parties are generally given load or wasteload allocation, a requirement to develop a program or facilities plan, and a timeline for implementation and compliance.

The Department expects that the needs and interests of the regulated parties, which we agree we should provide, include the following:

- timely and clear statements of the allocations, requirements and compliance dates that apply to them,
- technical assistance from the Department related to water quality data, available control technology or techniques, plan development, and funding mechanisms for implementation,
- the opportunity to participate meaningfully in the process through a public involvement program, and
- financial assistance to accomplish their responsibilities, particularly the local governments and state agencies.

RESOURCE REQUIREMENTS OF THE DEPARTMENT

The TMDL process described above takes several years to complete, depending on the size and complexity of the stream and the loads it receives. The work requires staff with various areas of expertise from several sections within the water quality division, including: Standards & Assessments, Industrial Wastewater, Municipal Wastewater, Surface Water (nonpoint source specialists), and Water Quality Monitoring (the lab).

During the 1990 calendar year the Department has been involved in one or more of the above stages of TMDL establishment and implementation for the Tualatin River, Yamhill River, Bear Creek, Columbia Slough, Pudding River, Klamath River, Coquille River and Clear Lake. Soon staff will have to identify the next two TMDL streams, those to be established in 1992, in order to plan the water quality studies to be conducted during the 1991 field season.

Currently, the Department has approximately 7 staff, not including those from the lab, who spend part of their time on TMDL work to total approximately 3 full-time equivalent positions. The Department estimates that 5 additional full-time equivalent positions at headquarters, and approximately 4 FTE at the lab, are needed to meet the consent order, do credible work and stay on schedule. This assumes we will continue to establish two new TMDLs per year, as well as follow through on the implementation of those already established.

See Attachment F on the proposed decision package for additional information on the estimated staffing needs for the TMDL program.

Table 1. OREGON TMDL STATUS TABLE, NOVEMBER 1990

Stream/Lake	STEPS 1-5, YEARS 1 & 2			STEPS 6-10, YEARS 3-8		
	Intensive Water Quality Study	Initial TMDL	EQC Action on TMDLs	Implementation Schedule	Hearing on Program Plan	EQC Approval of Program Plans
Tualatin River	completed	established	adopted NH3 TP	1. Point Source Plans: a. USA, March 1990	held	approved Aug 90
				2. Nonpoint Source Program Plans, March 1990: a. Counties & cities b. Forestry c. Agriculture	held June/July 1991 June/July 1991	approved Aug 90 in progress in progress
				3. Compliance June 1993		
Bear Creek	completed	established	adopted NH3 TP BOD	1. DEQ distribute WLA/LAs Sept 1990		
				2. Point Source Plans: a. Ashland, Oct 1989 b. Log pond permittees (3), May 1991	held	approved Sept 90
				3. Nonpoint Source Plans, June 1992: a. County & cities b. Forestry c. Agriculture		
				4. Compliance Dec 1994		

Table 1. OREGON TMDL STATUS TABLE, NOVEMBER 1990

Stream/Lake	STEPS 1-5, YEARS 1 & 2			STEPS 6-10, YEARS 3-8		
	Intensive Water Quality Study	Initial TMDL	EQC Action on TMDLs	Implementation Schedule	Hearing on Program Plan	EQC Approval of Program Plans
Yamhill River	completed	established	adopted TP	1. DEQ distribute WLA/LA, Aug 1989 2. Point Source Plans, Sept 1989: a. McMinnville b. Lafayette 3. Compliance June 1994	held plan not received	approved Sept 90
Columbia Slough	completed for fecal/algae, need additional work on toxics	established for fecal/algae, need additional work on toxics	information item Dec 90	none		
Pudding River	completed	in progress	information item Dec 90	none		
Coast Fork Willamette	completed	in progress	none	none		
S. Umpqua River	no action	no action	none	none		
Grande Ronde River	no action	no action	none	none		

Table 1. OREGON TMDL STATUS TABLE, NOVEMBER 1990

Stream/Lake	STEPS 1-5, YEARS 1 & 2			STEPS 6-10, YEARS 3-8		
	Intensive Water Quality Study	Initial TMDL	EQC Action on TMDLs	Implementation Schedule	Hearing on Program Plan	EQC Approval of Program Plans
Klamath River	in progress	no action	none	none		
Umatilla River	no action	no action	none	none		
Columbia River	no action	no action	none	none		
Garrison Lake	completed	established TP	none required			
Coquille River	in progress	in progress	none	none		
Rickreall Creek	in progress	in progress	none	none		
Clear Lake	completed	established	adopted			

NOTES: "Plan" refers to the program plans required to be developed by the named parties and describing their strategy for achieving WLA/LAs.
 TP = total phosphorus.

**DEVELOPMENT OF A TMDL FOR BACTERIA
IN THE COLUMBIA Slough****INTRODUCTION**

The Department of Environmental Quality has agreed to establish two Total Maximum Daily Loads (TMDLs) per year as part of a consent decree between the U.S. Environmental Protection Agency (EPA) and the Northwest Environmental Defense Center. The Columbia Slough has been identified as one of the streams for which TMDLS will be established this year.

The Columbia Slough has been identified as being water quality limited for pH - nuisance algal growth and for bacterial pollution. In addition the Department finds that although available information on toxicity justifies sufficient concern, data are inadequate to identify it as water quality limited for toxics. This report discusses the basis for a preliminary TMDL for bacterial pollution and factors the Department considered in developing it.

BACKGROUND

The Department has historically relied on Fecal Coliform as the indicator species of potential human pathogens for the water quality standard for bacteria. The Department has proposed and likely will switch to Enterococci bacteria as the indicator species. Even though the standard is in a state of flux, a primary source of bacterial pollution in Columbia Slough comes from combined sewer overflows, and the Slough would be considered water quality limited for enterococci, the proposed indicator organism as well.

Most of the monitoring accomplished by the City of Portland (City) and DEQ has focused on fecal coliform bacteria. This makes our data base relatively limited. The City undertook a Columbia Slough Evaluation in 1988-89. The Department anticipated using the data collected and models developed by the City to establish TMDLs for the Slough. Unfortunately, the data collected and models developed are not sufficient. The Department sees it as necessary to evaluate receiving water impacts recognizing the dynamic nature of the loads, tidally influenced Slough dynamics and the effect of large volumes of storm runoff on the Slough.

The TMDLs should reflect the dynamic nature of the loads and water quality impacts. The steady state modelling approach will not work. The data available do not allow the Department to develop a dynamic model. Thus, the preliminary TMDL proposal developed herein represents a starting point.

A preliminary TMDL can provide tentative allocations which will provide guidance on the levels of treatment or controls required. More importantly it can establish time frames and expectations of the Department for the development of tools and collection of data necessary to evaluate control/treatment alternatives for the Slough. The Department believes the identification of time frames and expectations and the inclusion of these into appropriate permits is a necessary step in the TMDL process to prevent postponement of efforts to protect the beneficial uses in the Slough.

In 1974 DEQ recommended, though did not require, separation of combined sewers discharging to the Slough over a ten year time frame as necessary to protect the beneficial uses of the Slough. However, available data do not indicate any improvement in water quality, and separation of sewers did not occur. Recently, EPA issued a "national combined sewer overflow policy" calling for CSOs to be addressed in permits. The policy identifies minimum technology based controls which must be implemented for combined sewers notwithstanding any additional control that may be needed to achieve water quality standards. The time frames and expectations specified in the preliminary TMDL would complement the national CSO policy for permitting CSOs and identifying needed controls and discharge limitations to achieve water quality standards.

Further complicating the development of "final TMDLs" is the fact that it is not clear where all the sources of bacteria to the Slough are. From the available data it is readily demonstrated that the Combined Sewer Overflows (CSOs) are the dominant source of bacteria to the Slough, however, storm water runoff is also a major source. EPA just issued regulations on October 31, 1990 requiring permits for storm water discharges. The regulations establish who must apply, what information is to be submitted in the permit applications and application submittal deadlines.

Besides large and medium municipalities with separate storm water systems serving a population of 100,000 or more, storm water discharges associated with industrial activity are to be addressed in some type of individual, group or general permit. Those with the storm water permit requirements include manufacturing, processing or raw materials storage areas at industrial plants including facilities subject to national effluent limitation guidelines; facilities with certain Standard Industrial Codes;

hazardous waste treatment, storage or disposal facilities; landfills; recycling facilities; vehicle maintenance, equipment cleaning and de-icing areas of water/ground and airport transportation facilities, petroleum bulk stations; sewage treatment works facilities; and steam electric power generating facilities, to name a few.

EPA will be requesting industrial storm water permitting plans from States in the near future. Many of the industrial facility types are located within the Columbia Slough drainage area and may be affected by permit requirements and the state's plan for permitting them.

SOURCES/PERMIT ACTIVITIES TO THE COLUMBIA Slough

Combined Sewer Overflows (CSOs)

As noted above, last year EPA established a national CSO policy which affirms that CSOs are point sources that must be covered by an NPDES permit (preferably in conjunction with a treatment plant). Though CSOs are not subject to secondary treatment regulations applicable to publicly owned treatment works, the national policy underscores that they are subject to both technology based and water quality based (TMDLs) requirements of the Clean Water Act. The CSO strategy calls for control programs for combined systems that complement the control programs for sanitary sewers and separate storm sewers.

It can reasonably be expected that CSO discharges contain viable human pathogens. Any CSO event can be expected to result in exceedence of bacterial water quality standards. The time that the Slough would be out of compliance would depend on both the residence time of waste in the Slough, and the die-off of viable pathogens.

CSOs to the Columbia Slough have long been recognized as a major source of pollution precluding the attainment of beneficial uses of the Slough. In 1974, the Department of Environmental Quality concluded that:

- "7. The City of Portland should plan to provide for the complete separation of sewers discharging to the Columbia Slough by 1985, or provide alternative means for controlling or treating these wastewaters so that untreated combined sewage is not discharged to Columbia Slough. The City should immediately evaluate and correct the conditions which cause the combined sewer overflow during the dry weather period." (Water Quality in Columbia Slough, Oregon, 1971 - 1973, April 1974 ODEQ).

Ironically, very similar conclusions are drawn under the current evaluation of the Columbia Slough, and the City has suggested a time frame for compliance on the order of a decade.

In 1970, the City of Portland held a symposium on the CSO problems in the City of Portland. CSOs have a long history in the City of Portland. The former city water supply, Balch Creek, ended up becoming the Balch Creek sewer, part of the City's combined sewer system. Similarly, Tanner Creek became the Tanner Creek Sewer System. Although backing up of waste into basements was identified as an obvious health problem the primary public concern was not being able to use the Willamette River.

Urban Nonpoint Sources

Urban stormwater runoff would be considered second to combined sewers as a source of bacterial pollution. An effective program to provide for contact recreation in the Columbia will need to include urban nonpoint source controls.

The City of Portland and possibly industrial facilities will be developing information to submit applications for stormwater discharge permits. At this time it is not clear what the exact EPA requirements for permits will be. The Department must make certain that the storm water permit(s) include the requirements of the TMDL for storm water discharges to Columbia Slough.

Landfill Closure

It is not known how significant of a load the St. Johns Landfill is to bacterial pollution of the Columbia Slough. However, it would seem reasonable to determine this load and if controls are necessary prior to determining the closure plan. The landfill closure plan can then include the pollution control measures necessary to protect beneficial uses.

Other Sources

Several other sources and background levels of bacteria may exist. There are several permitted dischargers to the Slough that are assumed to have no bacteria pollution. Upstream municipalities, such as Gresham may also contribute some level of bacterial pollution. Agricultural drainage also will be a source of some level of pollution. The data base currently available makes it difficult to separate these sources. The allocations must include the necessary reserve for background and other unidentified sources to allocate to these sources.

ANALYSIS FOR DEVELOPMENT OF THE TMDL

The City of Portland conducted instream investigations to support and provided the results of the steady state model QUAL2E for the Columbia Slough. Bacterial analysis focused on Fecal Coliform and very little information is available on enterococci bacteria, the proposed indicator species. Nonpoint source and CSO loads for a representative year were simulated under several control options. The City evaluated options of 66%, 75%, 90% removal and complete separation. Removal rates were a function of discharge volume.

The Department analyzed alternatives using methods described in "Combined Sewer Overflow Analysis Methodology, October 1986, USEPA". Similarly, alternatives were evaluated using the modified tidal prism method as presented in USEPA Water Quality Assessment: A Screening Procedure for toxic and Conventional Pollutants in Surface and Groundwater - Part II (Revised 1985).

The Department, after reviewing the evaluations, does not believe that any of the methods used are adequate for establishing allocations or fully describing current conditions. The Columbia Slough is tidally influenced, which is not accounted for in the QUAL2E application. The dominant pollution sources to the Slough are storm driven. Residence time of water in the Slough is largely dependent of CSO and storm water volumes which are a function of the storm event. None of the methods utilized would adequately reflect the dynamic nature of the tidal influence and the variation in residence time dependent on storm characteristics.

The Department in the TMDL did distribute the instream criteria based on the analysis presented or conducted by the Department. The distributions may be interpreted as the instream concentration that can be attributed to a given activity. For example, the CSO can contribute an average of xx enterococci to the concentration in the Slough. This is much different than identification of the allowable concentration in the CSO discharge. The primary difference is the greater volume of the Slough providing dilution. However, we must recognize that the Department anticipates that these criteria will likely change as better analytical methods and supporting data are developed.

Information does not exist that will allow loads, criteria exceedence, duration of exceedence, or frequency of exceedence to be adequately assessed. The effect of time dependent storm water runoff, CSO activities, and residence time in the Columbia Slough are not adequately incorporated into the allocations. The Department anticipates a TMDL for the Slough to reflect the dynamic nature of the pollution sources. It will be necessary to relate loads to how frequently they occur and the duration for which they influence water quality. A dynamic modeling approach is required to establish such a TMDL.

The City of Portland has hired a consultant to develop a hydrological dynamic model for the Columbia Slough. The Department feels that it can reasonably expect this tool to be available within six months. Therefore, it appears that refined allocations may be available in the near future.

Based on the analysis attempted to date the Department feels it can make some preliminary and general conclusions. The analysis to date indicates that CSOs are the dominant, over 90% of the fecal coliform bacterial pollution to the Slough. High loads of Enterococci were also associated with CSOs, however relative contributions can not be calculated with existing data. Residence time following a storm event appears to be the dominant method for reducing bacterial loads (CSO).

Removal of what the City defines as 65% of the occurrences would not be expected to achieve the beneficial uses of the Slough during the recreation season.

Removal rates for CSOs approaching 85% of the events, in conjunction with flow augmentation to reduce residence time, may prevent exceedences of the fecal bacteria coliform bacteria criteria. The Fecal coliform bacterial standard allows exceedence of a maximum value for $\leq 10\%$ of the time. It is not at all clear that the Enterococci criteria would be met.

Storm water may become the dominate factor influencing the Slough's water quality beyond controls of 75% - 85% of the CSO events. Implementing a storm water control plan will be necessary to protect uses of the Columbia Slough. Preliminary allocations anticipated 85%-90% reduction of CSOs, as defined by the City, as the basis for the WLAs.

Removal rates (or treatment and disinfection) of $\geq 90\%$ of the CSO events will likely prevent standards violations caused by CSO events during the summer recreation season.

Complete separation would be necessary to prevent bacterial standards violations year-round due to CSO events.

CURRENT POLICIES

The state has a draft strategy that reflects our current understanding of EPA's policy for CSOs. This draft strategy relies heavily on TMDL setting efforts to determine the additional controls beyond the "minimum federal requirements" that will be needed to achieve water quality standards.

The Department's criteria for bacterial pollution is currently being reviewed as part of the triennial standards review.

The Department has a policy for dealing with raw sewage bypass, a problem of untreated raw waste having a health and environmental effect similar to CSOs, but with different technologies for control options.

The bypass policy states that:

Sewerage Construction programs should be designed to eliminate raw sewage bypassing during the summer recreation season (except for a storm event greater than the 1 in 10 year 24 hour storm) as soon as practicable. A program and timetable should be developed through negotiation with each affected source. Bypasses which occur during the remainder of the year should be eliminated in accordance with an approved longer term maintenance based correction program. More stringent schedules may be imposed as necessary to protect drinking water supplies and shellfish growing areas.

A general application of the policy has been that no wet weather season bypass should occur in less than the one in five year storm event.

PRELIMINARY TMDL

The preliminary TMDL focuses on schedules for achieving the water quality standards in the Columbia Slough. Staff has assumed in the development of this TMDL that:

1. Contact recreation will be protected, except under extreme events, during the summer recreation season.
2. Allocations will initially be distributed for major known sources (CSOs and Urban Storm water) and for activities requiring permits from the Department (landfill closure).
3. Prevention of raw sewage discharge to the Slough is preferable. Options allowing occasional exceedence of the criteria may be considered if the City can demonstrate that the costs of achieving the standard are unreasonable. The City would be required to define the conditions under which the criteria would not be met, and provide appropriate notice to users of the Slough.
4. The Environmental Quality Commission will be asked to evaluate alternatives and associated costs to establish any appropriate frequency of occurrence of CSO events beyond the criteria.

5. Final loads, and waste load allocations, will be defined as a frequency and duration of occurrence. These loads may then be related to the storm frequency and duration which would generate the load.

The key component of the initial TMDL will be the compliance schedule. The compliance schedule will need to appear in the permits for CSOs, storm water discharges, and the landfill closure. As discussed earlier with respect to CSOs, the Department set goals and time frames previously, however appropriate intentions were not followed through.

Major steps in the time schedule are:

1. Application of the City's dynamic model to evaluate load and waste load allocations,
2. Development of a Work Group of DEQ/City of Portland/Metro/Citizen/Environmental groups to refine allocations,
3. Submittal of the City of Portland's program plan for CSOs and storm water,
4. Evaluation of program plans based on review and Commission action,
5. Final Compliance Date (18 months + 8 years - complete, 5 years- Summer).

The Department expects the program plan to include:

1. An analysis and evaluation of current conditions, including water quality, sediment quality, and beneficial use degradation. This will be used to describe current/baseline conditions. Included in this analysis will be frequency/occurrence of CSOs, quality of CSOs, loads from urban storm water, and receiving water quality.
2. A urban storm water runoff/CSO/rainfall event model which will simulate loads generated by storm events for each CSO and representative storm water outfalls.
3. A hydro-dynamic model which will simulate receiving water quality impacts from CSO/storm water runoff. Evaluation should include water column quality, sediment, and beneficial use impacts.

4. Calibration of load generating and receiving system impacts models using ambient and discharge data. Although this TMDL deals directly with bacterial pollution, other TMDLs will cover toxins, and nutrients-algal growth. The City will be required to simulate loads and receiving system impacts to bacterial pollution, toxins water column and sediment interactions, and algal growth conditions.
5. A mixing zone model which will simulate mixing characteristics of each CSO outfall. The Department expects the mixing zone analysis will be a major focus of the use protection as well as toxins evaluation. This analysis should describe water column mixing and the potential for sediment contamination and buildup.
6. Calibrate - verify the mixing zones model(s) using dye tracers, ambient data, and sediment analysis.
7. Identification of Best Management Practices that will be used for evaluation of controls (i.e Both storm water and CSO BMPs are practices that reduce the amount of pollutants caused by nonpoint source of CSOs during rainfall events). Examples of BMPs include sewer use ordinances, pretreatment programs, sewer maintenance, infiltration/inflow reduction, retention, detention of storm water, separation, inline/offline storage, sewer flushing and etc.
8. Identification of treatment practices that may be used for both storm water and CSO controls. At a minimum all CSO should receive treatment equivalent to primary treatment. At a minimum treatment evaluations should include those alternatives defined in DRAFT Combined Sewer Overflows Guidance Document Fall 1989 (USEPA), or the most recent draft or final version of USEPA guidance, and any CSO controls strategy developed by the Department of Environmental Quality.
9. Analysis of control/treatment alternatives to achieve the greatest reasonable reduction at each CSO site and representative of the storm water runoff. Analysis will need to simulate the effect of control/treatment alternatives on receiving water quality, beneficial uses protection, and compliance with state and federal policies.
10. An estimation of construction costs and maintenance cost for the control/treatment options. Costs should also be presented as the anticipated increase in user fees/sewer bills. Description of the economic capability and options for the community to implement the plan.

11. The Department recognizes that not all combination of options need to receive identical evaluation. If the City elects to implement a screening or progressive elimination of evaluation the process will need to be described in the program plan.
12. An evaluation of the practicability and benefits associated with a phased implementation process. The evaluation should include a priority ranking. Priority should be given to those projects that achieve beneficial use protection for contact recreation during the summer season. Other TMDLs will describe toxic reduction needs, which will be also be a high priority item for priority ranking.
13. A schedule of events, leading to the full compliance schedule.
14. A compliance monitoring plan.
15. A reporting process describing annual reporting procedures for updating the Department and requesting any modifications to the allocations, priority ranking, and time schedules. Reporting procedures must also establish procedures for data transfer, both ambient and at site compliance monitoring data.

SUMMARY

The Department, in order to establish the TMDL, has primarily relied upon the efforts of the City of Portland to monitor the Slough and generate a majority of the data to describe loadings and assimilative capacity. During the past several months, the Department has reviewed this information and has determined:

1. There is insufficient data available on pollution sources to accurately determine loadings.
2. The water quality models used by the City do not adequately evaluate the dynamic water quality conditions in the Slough.
3. The existing bacteria water quality criteria of 200 organisms per 100 milliliters for water contact recreation cannot be achieved in the winter without an extraordinary expenditure of funds for needed controls.

4. The Commission and Department should allow options to be developed for a winter time bacteria management plan for the Slough that include the potential for establishing a frequency of water quality criteria exceedence (even though insufficient data and information is available at the current time to assess storm frequencies and durations for which it may be found appropriate to suspend or waive a bacteriological numerical value).

Consequently, the Department cannot establish a final TMDL with the available data and instead a preliminary TMDL was developed. Two primary areas, however, need to be addressed by the Commission:

1. Should the Department proceed with a TMDL that focusses on time frames in which an appropriate analytical tool and data bases are developed?

This is a departure from previous TMDLs. The very preliminary TMDL which would be established under this scenario would not be set by rule initially. The Department believes this is appropriate because:

- a. Appropriate tools and data base are not available,
 - b. The preliminary TMDL would focus on time frames for completing necessary actions leading to refinement of the TMDL and review and selection of alternative control strategies. These steps are also consistent with actions needing to be taken under EPA's combined sewer overflow strategy.
 - c. The preliminary TMDL could be initially implemented through NPDES permits. This approach would allow the EQC to have more information on alternatives and costs prior to rulemaking.
2. Should the Department consider alternatives under the TMDL which would allow a certain frequency and duration of occurrences where numerical instream criteria are exceeded?

The occurrences would be based on certain defined hydrological and climatic conditions. The approach would be similar to conditional approval of shellfish areas. It is appropriate to raise this question because:

- a. This alternative is different than merely proposing a site specific numeric criteria as would be allowed under the proposed revised bacteriological standard now being taken to public hearing. A site specific criteria would indicate that under those site specific values the beneficial use is attained.

- b. Under an alternative where a defined frequency of exceedences is allowed, it is expected that for the duration of the exceedence, the beneficial use of primary contact recreation would not be attained. The Department needs to know if the Commission considers a TMDL based on such an alternative a potentially reasonable method for protecting the beneficial use of water contact recreation.

Policy direction from the Commission is also needed to help define the range of options that are appropriate for the City and others to evaluate in their program plans. If the Commission views this type of TMDL to be appropriate, analysis and review of appropriate storm event magnitude and frequencies where numerical values might be waived could be proposed as rules for adoption or Commission action on the program plans. Also, the City would be required to post the Slough and describe conditions under which contact recreation is eliminated due to CSO events.

- c. The Department believes that consideration of this type of alternative is appropriate. If the TMDL were to require achievement of the standard under all conditions, complete separation or treatment and disinfection of all CSOs would be required and the cost may be extreme. An alternative that utilizes a "frequency of exceedences" requires conditions under which the exceedences would occur to be defined and evaluated against the cost of control options.

For these reasons the Department believes it to be appropriate to develop a preliminary TMDL based on the information presently available. Rules would not be proposed until the Department has the opportunity to apply a reasonable tool for the distribution of WLAs, finalize potential water quality criteria modifications, and evaluate policy questions associated with allowing standard exceedences under described conditions.

DRAFT

**TOTAL MAXIMUM DAILY LOAD
WATER QUALITY MANAGEMENT PLAN COMPONENT**
Department of Environmental Quality
811 Southwest Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5696

Developed pursuant to ORS 468.730 and The Federal Clean Water Act

WATER QUALITY LIMITED SEGMENT:

COLUMBIA SLOUGH

RECEIVING SYSTEM INFORMATION:

Basin: Willamette
Subbasin: Lower Will.
County: Multnomah

WQ STANDARD NOT ATTAINED:

Bacteria
Contact Recreation

APPLICABLE RULES:

OAR 340-41-026
OAR 340-41-029
OAR 340-41-445(2)(e)(B)

TMDL PARAMETER:

Fecal Coliform
Enterococci

OAR 340-41-006

SOURCES COVERED BY THIS TMDL:

<u>Source Number</u>	<u>Allocation Type</u>	<u>Source Description</u>
001	LA	Background + Unidentified Sources + Reserve
002	LA	Urban Stormwater Runoff
003	WLA	Combined Sewer Overflows
004	WLA	Metro - Saint Johns Landfill

WATER QUALITY MANAGEMENT ACTIVITIES AND IMPLEMENTATION

This TMDL focuses on the timeframes to develop both the tools and support data necessary to evaluate pollution control alternatives for bacteria discharges. The TMDL will define the state's expectations for the development of data, tools, and plans to address bacteria problems in the Columbia Slough. These expectations will initially be included as compliance conditions for existing, or new NPDES permits.

Until this TMDL is modified, point source permits will be reissued as they are re-opened or expire to include limits for complying with the established waste loads. Where reduced limits are needed, compliance schedules will be specified for reaching those limits. Nonpoint sources will be addressed through specified schedules for developing and implementing needed control programs. Any 401 certification must demonstrate compliance with implemented control plans prior to the Department granting certification. All requirements, limitations, and conditions are set forth in the attached schedules as follows:

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Schedule B - Minimum Monitoring and Reporting Requirements...	4
Schedule C - Compliance Conditions and Schedules.....	6
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SCHEDULE A

Pollutant Discharge Limits not to be Exceeded

1. Pollutant Discharge Limitations not to be Exceeded After TMDL Issuance. These interim limits identifying current conditions. It is the States policy that no additional loads be permitted until the TMDL is achieved.

Observed Concentrations - City of Portland

	Lower Slough	Upper Slough	Stormwater	CSO
Enterocci	124 - 32,000	55 - 3,300	1,545 - 15,000	9,200 - 152,000
Fecal Coliform	ND - 66,000	25 - 16,400	909 - 11,200	20,000 - 544,000

Units are the number of colonies per 100 ml

- a. The bacterial loading capacity of the Slough is calculated using both the current fecal coliform criteria as a median 200 colonies and 10% of the samples 400 and the proposed Enterocci standard of a median of 33 with 5% of the samples exceeding 153 colonies / 100 ml.
- b. Loading capacities are calculated as average summer flow conditions. Alternative hydrological categories represent flow augmentation alternatives and are the average summer low flow resulting from the flow augmentation.

Pollutant Discharge Limits not to be Exceeded

2. Pollutant Discharge Limitations for the Development of Program plans, not to be exceeded after compliance with the TMDL. These limits are preliminary and the Department expects modification as the TMDL is developed. The limits provide guidance for the development of pollution control plans, identify known sources, allocate portions of the loading capacity to nonpoint sources, and establish a reserve to cover unknown sources and future growth and development.

Fecal Coliform (# / 100 ml) attributable to:

Flow	TMDL	LA-1 Unidentified NPS + BKG	LA-3 Urban Stormwater	WLA-1 CSO	WLA-2 Landfill Leachate	LA-3 RESERVE
100						
median	200	100	10	10	12	67
90%	400	100	88	132	12	67
100 - 150						
median	200	100	8	11	5	74
90%	400	100	80	145	5	69
150+						
median	200	100	7	11	5	77
90%	400	100	72	146	5	77

ENTEROCOCCI BACTERIA (#/100 ml) Attributable to:

Flow	TMDL	LA-1 Unidentified NPS + BKG	LA-3 Urban Stormwater	WLA-1 CSO	WLA-2 Landfill Leachate	LA-3 RESERVE
100						
median	33	5	8	1	3	12
95%	153	5	134	12	1	1
100 - 150						
median	33	5	8	1	3	16
95%	153	5	133	12	2	1
150+						
median	33	5	7	1	3	18
95%	153	5	132	12	1	1

NOTES: (Allocations for Bacterial Pollution)

Allocations distributed the instream criteria to various point and nonpoint sources and a reserve capacity. Distributing the standard allows individual permits to be assessed within a cumulative load. Permitted dischargers must demonstrate that the loads generated will not result in an instream increase of bacteria greater than allocated unless as specified under certain hydrogeologic conditions.

Allocations for background and nonpoint source for fecal coliform equal observed levels during extended dry periods (City of Portland).

Allocations for Stormwater - Fecal Coliform - are estimated from the City of Portland's estimated "future" stormwater volume and concentration.

WLA for Fecal Coliform from CSO are calculated from CSO volume estimates using between 75% - 90% reductions and estimated fecal concentrations.

WLA for landfill leachate are arbitrary.

Enterococci data is less abundant than fecal data. Volumes used in allocation are those used for fecal allocations. Estimated current concentrations are 6000 / 100 ml in stormwater and 60,000 100 ml in CSO discharge. Reductions varied between 60% and 90% removal in concentration for stormwater and 82.5 - 90% of volume for CSOs.

SCHEDULE B

Minimum Monitoring and Reporting Requirements

(unless otherwise approved in writing by the Department)

1. Ambient Compliance Monitoring. The City of Portland and the Department shall operate a receiving water monitoring program to evaluate the effectiveness of the TMDL and to guide development of any additional control strategies. The ambient monitoring program shall consist of the following:

<u>Location</u>	<u>River Mile</u>	<u>Agency</u>	<u>Parameter</u>	<u>Minimum Frequency</u> *	<u>Type of Sample</u>
"Landfill Road" lower slough		City	Basic/ ¹ & Solids/ ²	SemiMonthly	Grab
		"	Nutrients/ ³	SemiMonthly	Grab
		"	Chloro. <u>a</u>	SemiMonthly	Grab
		"	Bacteria/ ⁴	SemiMonthly	Grab
MLKJ BLVD lower slough	7.3	City	Basic/ ¹ & Solids/ ²	Semimonthly	Grab
		[-----]	Nutrients/ ³	Semimonthly	Grab
		"	Chloro. <u>a</u>	Semimonthly	Grab
		"	Bacteria/ ⁴	Semimonthly	Grab
UPPER SLOUGH	9.0	City	Basic/ ¹ & Solids/ ²	Semimonthly	Grab
		"	Nutrients/ ³	Semimonthly	Grab
		"	Chloro. <u>a</u>	Semimonthly	Grab
		"	Bacteria/ ⁴	Semimonthly	Grab
UPPER SLOUGH @ 158th		City	Basic/ ¹ & Solids/ ²	Semimonthly	Grab
		"	Nutrients/ ³	Semimonthly	Grab
		"	Chloro. <u>a</u>	Semimonthly	Grab
		"	Bacteria/ ⁴	Semimonthly	Grab
STORMWATER The City of Portland must establish an ongoing monitoring network which will establish urban loads of bacterial pollution	---	City	Basic/ ¹ & Solids/ ²	intermittent	Grab
		"	Nutrients/ ³	intermittent	Grab
		"	Chloro. <u>a</u>	intermittent	Grab
		"	Bacteria/ ⁴	intermittent	Grab

* May 1 - October 30 unless otherwise noted.

- 1. Basic: Water temperature, dissolved oxygen, conductivity, pH
- 2. Solids: Total solids, total suspended solids
- 3. Nutrients: NH₃-N, NO₂+NO₃-N, Total Kjeldahl Nitrogen, Total Phosphorus, Dissolved Ortho Phosphorus
- 4. Bacteria: Fecal Coliform and Enterococci Bacteria

2. Source Compliance Monitoring. The following source monitoring program will be conducted by the City of Portland to define waste loads being discharged to the Columbia Slough:

<u>Source</u>	<u>Parameter</u>	<u>Minimum Frequency</u>	<u>Type of Sample</u>
1CSOs (Outfall 001) through NNN)	Total Flow	Event based	Grab(s)
	Ammonia Nitrogen	"	"
	Total Kjel. Nitrogen	"	"
	NO ₂ +NO ₃ -N	"	"
	Total Phosphorus	"	"
	Dissolved Ortho Phosphorus	"	"
	BACTERIA		
2Landfill leachate (Outfall 001) through NNN)	Total Flow	Monthly and Event based	Grab
	Ammonia Nitrogen	"	"
	Total Kjel. Nitrogen	"	"
	NO ₂ +NO ₃ -N	"	"
	Total Phosphorus	"	"
	Dissolved Ortho Phosphorus	"	"
	Total Dissolved Solids	"	"
	Conductivity	"	"
	BACTERIA		

3. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless other test procedures have been approved by the Department.

Event based monitoring requirements will be conducted as approved by the Department for a representative number of CSOs and frequency

Metro will need to establish a monitoring program which identifies leachate locations and monitors an approved representative number of leachate discharge locations.

4. Reporting Procedures. Monitoring results shall be reported on approved forms. The reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the following month.

SCHEDULE C

Compliance Conditions and Schedules

1. Within 18 MONTHS of adoption of this TMDL, the City of Portland shall submit a plan and time schedule to the Department describing how and when the city will modify its sewerage facilities to comply with the WLA identified in this TMDL.
2. Within 180 days of the adoption of this TMDL, the City of Portland shall submit an interim nonpoint source pollution control plan for to the Department. This plan will be used by the Department as the basis for demonstrating compliance with water quality requirements for any activities requiring certification by the Department. This plan shall be interim until a basin wide NPS management plan is adopted by the city to achieve compliance with the LAs in this TMDL.
3. Within 18 MONTHS of the adoption of this TMDL, the City of Portland shall submit a plan defining how they will comply with the LAs defined in this TMDL.
4. Prior to approval of a closure plan by the Department, METRO will be required to submit a water quality control plan that identifies anticipated loads to the Columbia Slough and how and when activities will be implemented to comply with the WLA defined in this TMDL, and describes an appropriate monitoring plan to demonstrate compliance. For any proposed discharge of leachate to waters of the state Metro must define an appropriate mixing zone for the mixing of waste and receiving water.
5. Within 5 years of the approval of implementation plans for the Columbia Slough by the Department of Environmental Quality, schedule A, section 1, of this TMDL will be replaced by section 2 of Schedule A.
6. Within 6 months the City will provide the Department a description of how the city will develop and calibrate a load generating model for stormwater runoff and CSO discharges to the slough. The model, once calibrated, will be required to simulate the affect of alternative strategies on loads generated. Monitoring requirements for model development and calibration are expected to much more intensive than the Compliance Monitoring outlined in schedule B, and are therefore separated from the minimum compliance monitoring requirements. This requirement will be incorporated into the City Program Plan

7. Within 6 months the City will provide the Department a description of how the City will develop and calibrate a receiving water quality impact model. The model will be expected to simulate the water quality resulting from the CSO and stormwater control options assessed as required in condition 6. Monitoring requirements for model development and calibration are expected to be much more intensive than the Compliance Monitoring outlined in schedule B, and are therefore separated from the minimum monitoring requirements. This requirement will be incorporated into the City Program Plan.
8. Within 9 months the City will provide the Department with a description of how the City proposes to model and verify the mixing zones of each CSO to the Columbia Slough.
9. Within 3 months the City and Metro will enter into memorandums of agreement with DEQ which describe the Department's expectations from Program plans and other requirements of this TMDL. Any appropriate schedules application of the models currently being developed or required by the Department to modification of the TMDL may be described in these memorandums. Memorandums or agreement will be included as part of the TMDL.
10. Within 1 year the City of Portland will provide the Department a draft of their program plan. This draft will describe the accomplishments to date. The Department anticipates that the newly promulgated USEPA stormwater rules will require a draft permit within one year. This draft report will fulfill the EPA requirements.

SCHEDULE D

Special Conditions

1. An assessment report will be prepared by the City of Portland which describes the data collected, model development and calibration, for a dynamic model to evaluate ambient responses to control alternatives for CSOs, unidentified urban NPS loads and urban stormwater loads. Allocations will be reviewed and may be modified using information presented in this report.
2. A biennial report will be submitted by the City of Portland which describes the effectiveness of their nonpoint source control programs towards attaining water quality standards in the Columbia Slough. This report will be submitted to the Department by January 1st on even numbered years for incorporation into the state-wide water quality assessment.
3. The Department and the City of Portland will use the assessment report and other information from the monitoring program to continually evaluate the effectiveness of this TMDL. If the data indicates adjustments are needed, the TMDL will be reopened. Wasteload allocations and load allocations may be redistributed. The final TMDL may exceed the loading capacity for the stream, under alternatives being reviewed and identified as "conditional approval".
4. The City of Portland, METRO and DEQ will establish a memorandum of agreement describing time frames for review and application of the models being developed for application and refinement of the preliminary allocations (schedule 2, for development of Program Plans).

DEVELOPMENT OF A TMDL TO CONTROL ALGAL GROWTH IN THE COLUMBIA SLOUGH

INTRODUCTION

The Department is establishing a TMDL to prevent nuisance algal growth in the Columbia Slough. Current levels of algal growth result in pH violations and exceedence of the state's nuisance phytoplankton growth action level. The TMDL parameter being established is dissolved ortho-phosphorus as phosphorus.

The Department intended to use data and models developed by the City of Portland (City) as part of our Columbia Slough (TMDL) Evaluation. Data was collected to support the hydrologically steady state USEPA supported model QUAL2E. The major problem with applying this model to establish TMDLs in the slough is tidally influenced and water in the slough does not conform to the steady state assumption.

Similarly, some of the known loads, CSO (combined sewer overflow) discharge and stormwater runoff, are dynamic. The City concluded that both storm water runoff and CSOs contribute significant phosphorus loads. It would not be appropriate to establish a pollution control plan based on steady state loads for these temporal discharges. The available data does not allow the Department to estimate the relative contribution of loads from these sources. The Department envisions identifying loads based on receiving water impact, and distributing the loads based on the frequency/duration of the storm event driving the loads from urban nonpoint source (NPS) and CSO discharge. Analysis of receiving water quality impacts from the temporal discharges can not be supported with the current information.

The City has hired a consultant to develop and calibrate a dynamic water quality model for the Columbia Slough. The Department expects that this effort, supported by the City's previous efforts at data collection, and NPS and CSO simulation efforts, will provide the information necessary to begin evaluating alternatives.

BACKGROUND

The Department is required to establish national pollution discharge elimination system (NPDES) permit conditions for combined sewer overflows (CSOs) discharging to the Columbia Slough. The CSO permits are not required to achieve the secondary treatment required of municipal treatment systems, however, the permits are subject to water quality based permitting requirements. The algal growth TMDL will be one of several TMDLs necessary to protect the beneficial uses of the Columbia Slough.

It is anticipated that EPA will soon define nonpoint source pollution control permit requirements for urban areas. Draft rules proposed by EPA identified that the urban NPDES criteria were subject to water quality based permitting requirements.

The St. Johns Landfill closure will also require permit activities from the Department. The permit requirements need to assure that the closure plan will fulfill the requirements necessary to protect the beneficial uses of the Columbia Slough.

ANALYSIS TO DATE - PRELIMINARY TMDLS

The City analyzed the Slough using the EPA supported steady state QUAL2E model. The City concluded that flow augmentation could potentially reduce algal growth in the Columbia Slough.

The Department used, with modifications, input files for QUAL2E developed by the City to assess algal growth under conditions of differing augmentation flow and nutrient concentration. The Department must emphasize that the steady state assumptions are not appropriate for the lower Slough. The Department therefore does not have confidence in the results of this approach. However, results do indicate that flushing would reduce residence time and, assuming the Columbia River as the water supply, dilute nutrient concentrations. The combined affect could be to reduce phytoplankton growth. The only conclusion that can be drawn is that dilution, or a combination of dilution and nutrient control, provide viable options worth pursuing.

The Department reviewed alternatives for augmenting flow in the Columbia Slough in a 1974 assessment (DEQ - Ed Quan). At that time the Department was concerned with the potential deposition of suspended solids carried by the Columbia River. As flow augmentation options are further reviewed the potential for sediment deposition will need to be assessed.

The preliminary TMDLs will define ambient ortho-phosphorus concentrations as a function of average flow in the Columbia Slough. Although the Department feels that steady state model application is not appropriate for the Slough, the preliminary values provide a rough estimate of the flow augmentation and nutrient reduction requirements needed to protect the beneficial uses of the Columbia Slough.

DEPARTMENT APPROACH

The Department proposes to establish the TMDL based on current information. The TMDL will focus on establishing actions and timeframes for implementing the pollution control strategies. The preliminary TMDL would initially be established through the Department's authority related to NPDES permits. As options are reviewed and selected the Commission may be asked to establish rules for defining the TMDL in basin plans. Any such rule making action would be supported by substantially more information than currently available.

Department actions will include:

1. Review and application of model(s) for refining TMDLs and WLA/LAs.
2. Establish permits for urban NPS, CSOs and landfill closure. Permits will require public hearings. Define compliance schedule.
3. Review and evaluate program plans.
4. Refine preliminary TMDL as necessary. Evaluate alternatives and provide staff recommendation for final TMDL and any needed administrative rules.

PROGRAM PLAN EXPECTATIONS

The preliminary TMDL will focus on defining compliance schedules. One of the key steps in the compliance schedule will be the development of program plans. The program plan will require additional analysis from entities requesting discharge permits to the Columbia Slough. The Department will expect the program plan from the City to:

Develop and calibrate a model that simulates nutrient loads from urban runoff and CSO discharges.

Develop and calibrate a dynamic water quality receiving water model for the Columbia Slough. This model, at least for the algal growth component, should simulate macro-nutrient concentrations, suspended sediment, algal growth, dissolved oxygen and pH.

Evaluate alternative flow augmentation scenarios by their effect on residence time and resulting water quality.

Define and evaluate urban NPS and CSO best management practices and treatment alternatives on loads to the Columbia Slough. (NOTE: it would seem more than reasonable to evaluate the alternatives with respect to the bacterial and toxic concern TMDLs).

Simulate the effect of alternative treatment/control/BMPs (best management practices) scenarios on urban NPS and CSO loads to the Columbia Slough.

Simulate the effect of the loading scenarios on receiving water quality.

Estimate the construction and maintenance cost of the alternatives. This component should discuss the costs associated with each alternative.

Identify the time frames for review, selection, initiation, and completion of alternative projects. This component of the program should discuss any potential benefits of phased implementation. If phased implementation appears reasonable, then the City should identify a priority classification. The Department will expect that highest priority be given to those projects which are consistent with priorities of the bacterial and toxin TMDLs.

Identify monitoring and reporting procedures. The reporting procedures will be used to:

Verify compliance with the time schedule/TMDL

Determine the effectiveness of the TMDL

Provide data for review and, if data suggest that it is necessary, modifications to the TMDL

Provide a forum for review of the application of the TMDL between the Department and the permittees

Other permitted sources, such as METRO for the St. Johns Landfill, will be required to submit program plans to the Department for review and analysis. Similar requirements will be included for METROs program plan. Obviously, since the landfill has no CSOs, their permit would have no requirements for simulating CSO loads. However, METRO will be required to simulate leachate loads and stormwater runoff loads to the slough. It would seem reasonable for METRO to cooperate with the City, and their consultant in the development and calibration of the receiving water quality model.

There are several other permitted dischargers to the Columbia Slough. These industrial dischargers are assumed to be minor loads compared to the CSOs. As the TMDL is developed, these permit holders will be required to describe the quality and quantity of their discharge to the Columbia Slough, and if necessary modify their discharge to achieve the allocations.

DRAFT

TOTAL MAXIMUM DAILY LOAD

WATER QUALITY MANAGEMENT PLAN COMPONENT

Department of Environmental Quality
811 Southwest Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5696

Developed pursuant to ORS 468.730 and The Federal Clean Water Act

WATER QUALITY LIMITED SEGMENT:

COLUMBIA SLOUGH (RM 0 - 8)

RECEIVING SYSTEM INFORMATION:

Basin: Willamette
Subbasin: Lower Will.
County: Multnomah

WQ STANDARD NOT ATTAINED:

pH
Aesthetics

APPLICABLE RULES:

OAR 340-41-026
OAR 340-41-029
OAR 340-41-442(2)(d)(B)

TMDL PARAMETER:

Dissolved Ortho Phosphorus as
Phosphorus

OAR 340-41-006

SOURCES COVERED BY THIS TMDL:

Source Number	Allocation Type	Source Description
001	LA	Background + Unidentified Nonpoint Source
002	LA	Urban Stormwater Runoff
003	WLA	Combined Sewer Overflows

WATER QUALITY MANAGEMENT ACTIVITIES AND IMPLEMENTATION

Until this TMDL is modified, point source permits will be reissued as they are re-opened or expire to include limits for complying with the established waste loads. Where reduced limits are needed, compliance schedules will be specified for reaching those limits. Nonpoint sources will be addressed through specified schedules for developing and implementing needed control programs. Any 401 certification must demonstrate compliance with implemented control plans prior to the Department granting certification. All requirements, limitations, and conditions are set forth in the attached schedules as follows:

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SCHEDULE A

Pollutant Discharge limits not to be Exceeded

1. Ambient level not to be Exceeded After TMDL Issuance (Interim Limits based on existing conditions prior to implementation of controls).

Dissolved Ortho Phosphorus (mg/l)

Location	Median	Log Normal Std Dev	(N)
138th	0.021	0.69	17
Landfill Rd.	0.012	0.40	36
Union Ave.	0.015	0.66	15

Pollutant Discharge limits not to be Exceeded

2. Pollutant Discharge Limitations for the Development of Program plans, not to be exceeded after compliance with the TMDL

Flow	TMDL	Ortho Phosphorus (LBS / DAY)			WLA-1 CEO	WLA-2 Landfill Leachate
		LA-1 Unidentified NPS + BAG	LA-2 Columbia Dilution	LA-3 Urban Stormwater		
<70	5.7	5.7	----	0	0	0
70 - 100	10.8	6.9	3.2	0.2	0.2	0.1
100 - 150	24.2	11.7	8.6	1.9	1.9	0.1
150 - 200	43.1	12.2	14.0	3.4	3.5	0.1
> 200	67.4	12.7	21.6	14.0	14.0	0.1

NOTES: Calculation of this table assumed a base condition design flow for the slough of 70 CFS. The 70 cfs represents base conditions, the background + unidentified point and nonpoint source loads was calculated assuming an instream concentration of 30 g/l for flow conditions when the instream criteria could be meet. The Columbia River dilution flow loads were calculated as [Design Q - Design Q (slough)(70 cfs)]* 0.02 mg/l * 5.39. The remaining load was allocated to Urban runoff, CSOs and Landfill Leachate. The WLAs are an are evenly distribute between CSOs and Urban Runoff based on City of Portland's description of the phosphorus loads being relatively even. The WLA to the landfill is based on information presented by METRO, median of 0.08 lbs/d. All loads were calculated using the upper end of the flow range. Ambient concentrations are calculated as:

Q	C (Ortho P)
70	0.015
100 cfs	0.02
150 cfs	0.03
200 cfs	0.04
250 cfs	0.05

SCHEDULE B

Minimum Monitoring and Reporting Requirements

(unless otherwise approved in writing by the Department)

1. Ambient Monitoring. The City of Portland and METRO shall operate a receiving water monitoring program to evaluate the effectiveness of the TMDL and to guide development of any additional control strategies. The ambient monitoring program shall consist of the following:

<u>Location</u>	<u>River Mile</u>	<u>Agency</u>	<u>Parameter</u>	<u>Minimum Frequency</u> *	<u>Type of Sample</u>
"Landfill Road" lower slough		City Metro	Basic/ ¹ & Solids/ ²	SemiMonthly	Grab
			Nutrients/ ³	SemiMonthly	Grab
			Chloro. <u>a</u>	SemiMonthly	Grab
			Bacteria/ ⁴	SemiMonthly	Grab
MLKJ BLVD lower slough	7.3	City Metro	Basic/ ¹ & Solids/ ²	Semimonthly	Grab
			Nutrients/ ³	Semimonthly	Grab
			Chloro. <u>a</u>	Semimonthly	Grab
			Bacteria/ ⁴	Semimonthly	Grab
Upper Slough	9.0	City Metro	Basic/ ¹ & Solids/ ²	Semimonthly	Grab
			Nutrients/ ³	Semimonthly	Grab
			Chloro. <u>a</u>	Semimonthly	Grab
			Bacteria/ ⁴	Semimonthly	Grab
North Slough	---	City Metro	Basic/ ¹ & Solids/ ²	Semimonthly	Grab
			Nutrients/ ³	Semimonthly	Grab
			Chloro. <u>a</u>	Semimonthly	Grab
			Bacteria/ ⁴	Semimonthly	Grab

* May 1 - October 30 unless otherwise noted.

1. Basic: Water temperature, dissolved oxygen, conductivity, pH
2. Solids: Total solids, total suspended solids
3. Nutrients: NH₃-N, NO₂+NO₃-N, Total Kjeldahl Nitrogen, Total Phosphorus, Dissolved Ortho Phosphorus
4. Bacteria: Enterococci and Fecal Coliform

2. Source Monitoring. The following source monitoring program will be conducted by the City of Portland to define wasteloads being discharged to the Columbia Slough:

<u>Source</u>	<u>Parameter</u>	<u>Minimum Frequency</u>	<u>Type of Sample</u>
1CSOs (Outfall 001) through NNN)	Total Flow (mgd)	Event based	Grab(s)
	Ammonia Nitrogen	"	"
	Total Kjel. Nitrogen	"	"
	NO ₂ +NO ₃ -N	"	"
	Total Phosphorus	"	"
	Dissolved Ortho Phosphorus	"	"
Landfill leachate (Outfall 001) through NNN)	Total Flow (mgd)	Monthly	Grab
	Ammonia Nitrogen	"	"
	Total Kjel. Nitrogen	"	"
	NO ₂ +NO ₃ -N	"	"
	Total Phosphorus	"	"
	Dissolved Ortho Phosphorus	"	"
	Total Dissolved Solids	"	"
	Conductivity	"	"

3. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless other test procedures have been approved by the Department.

Event based monitoring requirements will be conducted as approved by the Department for a representative number and frequency of CSOs events and for stormwater runoff.

Leachate monitoring will be conducted on an approved representative number of leachate discharge locations.

4. Reporting Procedures. Monitoring results shall be reported on approved forms. The reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the following month.

SCHEDULE C

Compliance Conditions and Schedules

1. Within 18 MONTHS of adoption of this TMDL by the City of Portland shall submit a plan and time schedule to the Department describing how and when the city will modify its sewerage facilities to comply with the WLA identified in this TMDL.
2. Within 180 days of the adoption of this TMDL by the City of Portland shall submit an interim nonpoint source control plan for reference to the Department. This plan will be used by the Department as the basis for demonstrating compliance with water quality requirements for any activities requiring certification by the Department. This plan shall be interim until a basin wide NPS management plan is adopted by the city to achieve compliance with the LAS in this TMDL.
3. Within 18 MONTHS of the adoption of this TMDL the City of Portland shall submit a plan defining how they will comply with the LAS defined in this TMDL.
4. Prior to approval of a closure plan by the Department, METRO will be required to submit a water quality control plan that identifies anticipated loads to the Columbia Slough, how and when activities will be implemented to comply with the WLA defined in this TMDL, and describes an appropriate monitoring plan to demonstrate compliance. Any proposed discharge of leachate to waters of the state Metro must define an appropriate mixing zone for the mixing of waste and receiving water.
5. Within 8 years of the approval of implementation plans for the Columbia slough by the Department of Environmental Quality, schedule A, section 1, of this TMDL will be replaced by section 2 of Schedule A.
6. Within 6 months the City will provide the Department a description of how the city will develop and calibrate a load generating model for stormwater runoff and CEO discharges to the slough. The model, once calibrated, will be required to simulate the affect of alternative strategies on loads generated. Monitoring requirements for model development and calibration are expected to much more intensive than the Compliance Monitoring outlined in schedule B, and are therefore separated from the minimum compliance monitoring requirements. This requirement will be incorporated into the COP Program Plan

7. Within 6 months the City will provide the Department a description of how the City will develop and calibrate a receiving water quality impact model. The model will be expected to simulate the water quality resulting from the CSO and stormwater control options assessed as required in condition 6. The model will be expected to simulate conditions under various flow augmentation scenarios. Monitoring requirements for model development and calibration are expected to be much more intensive than the Compliance Monitoring outlined in schedule B, and are therefore separated from the minimum monitoring requirements. This requirement will be incorporated into the City Program Plan.
8. Within 3 months the City of Portland and Metro will enter into memorandums of agreements with DEQ which describe the Departments expectations from Program plans and other requirements of this TMDL. Any appropriate schedules application of the models currently being developed or required by the Department to modification of the TMDL may be described in these memorandums. Memorandums or agreement will be included as part of the TMDL.
9. Within 1 year the City of Portland will provide the Department a draft of their program plan. This draft will describe the accomplishments to date. The Department anticipates that the newly promulgated USEPA stormwater rules will require a draft permit within one year. This draft report will fulfill the EPA requirements.

SCHEDULE D

Special Conditions

1. An assessment report will be prepared by the City of Portland which describes the data collected, model development and calibration, for a dynamic model to evaluate ambient responses to control alternatives for CSOs, unidentified urban NPS loads and urban stormwater loads. Allocations will be reviewed and may be modified using information presented in this report.
2. A biennial report will be submitted by the City of Portland which describes the effectiveness of their nonpoint source control programs towards attaining water quality standards in the Columbia Slough. This report will be submitted to the Department by January s on even numbered years for incorporation into the state-wide water quality assessment.
3. The Department and the City of Portland will use the assessment report and other information from the monitoring program to continually evaluate the effectiveness of this TMDL. If the data indicates adjustments are needed, the TMDL will be reopened. Wasteload allocations and load allocations may be redistributed, but in no case will the final TMDL exceed the loading capacity for the stream.
4. The City of Portland, METRO and DEQ will establish a memorandum of agreement describing time frames for review and application of the models being developed for application and refinement of the preliminary allocations (schedule 2, for development of Program Plans).

SA\WC7475 (11/27/90)

**DEVELOPMENT OF PRELIMINARY TMDLS
FOR TOXINS IN THE COLUMBIA Slough****INTRODUCTION**

The Department believes that the appropriate method for initiating efforts towards addressing toxins is through the establishment of TMDLs for toxins. Initially, this TMDL will focus on describing the activities the Department believes are necessary to adequately undertake required permitting activities. These activities will, in the immediate future, include CSOs and stormwater discharge to the Columbia Slough as well as landfill closure. As existing permits expire or new dischargers to the Slough are requested, applicants will be required to characterize their waste stream and conduct appropriate mixing zone studies.

BACKGROUND

Current data is sufficient to identify concerns, such as exceedence of standards for water quality, proposed standards for fish tissue and proposed guidance levels for sediment. Available information is not sufficient for identifying sources, loads, or the extent of degradation due to observed levels of toxins. The paucity of data makes initiating a TMDL difficult. However, the Department believes it is reasonable to expect significant efforts to be applied toward developing and evaluating pollution control strategies for the Columbia Slough.

Although there is very little data on toxins, it is important to address this concern with a reasoned strategy. The risk of non action is having to repeat efforts currently required for CSO permitting, nonpoint source permits, and other TMDLS. Such duplication of effort could, if toxin concerns become associated with current loads, jeopardize the selection of alternatives.

The City of Portland will be required to undertake significant effort to evaluate urban stormwater, and CSO loads to the Columbia Slough. Results of these efforts will lead to the implementation of a pollution control plan for the Columbia Slough. The objectives of pollution control efforts will be defined in Total Maximum Daily Loads for pollutants to the Columbia Slough.

Given the level of effort that will be required to develop pollution control plans for the Slough the Department believes it is reasonable to include a toxin component to the studies.

There are many potential sources of toxins to the Columbia Slough. For example, EPA lists 28 "potential Superfund Sites" in the basin. The City of Portland compiled a list of potential pollution sources in their Columbia Slough Planning Study Background Report (1989). This list includes most, if not all, of the sources permitted to discharge to the Slough.

Urban nonpoint sources, through stormwater runoff and CSOs may contribute toxins to the Columbia Slough. Several toxins, such as lead, come from multiple dispersed sources and are indeed not attributable to a single source. For others that may originate at sources, it may not be possible to identify the source.

Toxins may be persistent in the environment. The original sources of toxins that are currently encountered in the sediment, fish tissue, or water column may no longer exist.

Identifying and controlling existing sources and treating nonpoint source runoff may only be components of the activities necessary to achieve standards. Persistent toxins may occur in sediment or fish tissue long after appropriate pollution control activities are implemented.

Information relating the effect of the various toxin loads to the Columbia Slough is nearly nonexistent. Sketchy information exists for some of the point source dischargers to the Slough through Department mixing zone analysis. This information is not always heartening:

"Although effluent values for these parameters were within NPDES permit limits, concentrations in the east end of the cove exceeded water quality criteria for acute toxicity". The Cove would be outside of the mixing zone.

Both the City of Portland and DEQ have limited grab samples for different toxins from stormwater and CSO's to the Columbia Slough. This information is not adequate to characterize the quality of the discharge. There is no information which would allow a definition of an appropriate mixing zone for CSOs. Data is insufficient to draw any clear link between sources and the observed levels of toxins in the Columbia Slough.

The City of Portland suggested that the low invertebrate abundances found at two locations in the Columbia Slough may be related to the relatively high concentrations of some metals occurring at those locations. The attached summary presents observed exceedences of toxins for proposed water quality and fish tissue standards and proposed sediment guidelines.

DEPARTMENT APPROACH

The Department proposes to establish a TMDL for toxins at this time and, as discharge permit are required or become due, to include the TMDL requirements. The Department expects that the TMDL will be modified as data from sources, and evaluations from the City of Portland, become available. The preliminary TMDL for toxins will be instituted through the Department's permitting requirements.

The preliminary TMDL will focus on permit requirements. Significant effort will be necessary to determine an appropriate monitoring strategy for characterizing and, where necessary, simulating toxin loads from the various permitted sources.

The permitted sources will also be required to describe the affect of the discharge on the receiving water body, the Columbia Slough or tributaries. For all permitted dischargers, this will require characterizing the discharge and simulating the mixing characteristics to define an appropriate mixing zone. An appropriate mixing zone will assure water quality standards for toxins are met at the edge of the mixing zone and that sediment buildup does not occur.

The Department recognizes that preliminary allocations are arbitrary allocations. We simply do not have the information to define the current loads or relative distribution among sources. The Department would expect these allocations to change substantially as further information is developed. However, the allocations do provide criteria for assessing mixing zone evaluations until additional information allowing the assessment of cumulative impacts becomes available and justifies a refined allocation.

The City of Portland will be required to describe appropriate mixing zones for all CSO points of discharge. These mixing zone requirements will be the same as for other point source dischargers.

Stormwater discharge may not be held to the mixing zone requirements as point source dischargers. The City of Portland will be required to characterize and simulate stormwater loads of toxins to the Columbia Slough. The City of Portland will be required to simulate the fate of toxin loads on water column and sediment quality of the Columbia Slough. This assessment may likely lead to refinement of the preliminary WLAs.

The added emphasis of TMDL establishment will allow the Department to include appropriate monitoring requirements and limits in discharge permits to the Columbia Slough. Public review and comments under the preliminary TMDL would occur during the permitting process. When, or if, data becomes available to evaluate cumulative impacts of the multiple point sources and non point sources then the TMDL may be refined.

The preliminary TMDLs identify the Department's intent to include waste characterization and mixing zone evaluations as permit conditions for all dischargers to the Columbia Slough. Similarly, urban nonpoint source pollution control plans and permits will be required to quantify and simulate toxin pollution loads along with other TMDL parameters.

DRAFT

TOTAL MAXIMUM DAILY LOAD

WATER QUALITY MANAGEMENT PLAN COMPONENT
Department of Environmental Quality
811 Southwest Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5696

Developed pursuant to ORS 468.730 and The Federal Clean Water Act

WATER QUALITY LIMITED SEGMENT:

COLUMBIA Slough

RECEIVING SYSTEM INFORMATION:

Basin: Willamette
Subbasin: Lower Will.
County: Multnomah

WQ STANDARD NOT ATTAINED:

PCBs Chronic 0.014 $\mu\text{g}/\text{l}$
Lead Chronic 3.20 $\mu\text{g}/\text{l}$
Mercury Chronic

APPLICABLE RULES:

OAR 340-41-026
OAR 340-41-029
OAR 340-41-445(2)(e)(B)
Proposed fish tissue
Proposed Sediment

TMDL PARAMETERS:

Water Column Standards

PCBs
Lead
Zinc
Mercury

Fish Tissue Proposed Standards

PCBs

Arsenic
Dioxin (2378-TCDD)
(2378-TCDF)

Sediment Proposed Guidance

Lead
Zinc
Mercury

Dioxin
(2378-TCDD)
Copper
Cadmium
Chromium

SOURCES COVERED BY THIS TMDL:

<u>Source Number</u>	<u>Allocation Type</u>	<u>Source Description</u>
001	(W) LA	Background + Reserve
002	LA	Urban Stormwater Runoff (100+pipes)
003	WLA	Combined Sewer Overflows (13)
004	WLA	Metro - Saint Johns Landfill
005-NNN	WLA	Other Point Sources, Potential WLA Superfund (Allied Platting) (1) Potential Superfund (28)* Permitted Industrial (21)* RCRA (209)*

* City of Portland Pollution Source Inventory

WATER QUALITY MANAGEMENT ACTIVITIES AND IMPLEMENTATION

This TMDL focuses on the time frames for developing both the tools and support data necessary to describe the extent and degree of toxin impact on the Columbia Slough, and if necessary to evaluate pollution control alternatives. The TMDL will define the state's expectations for the development of data, tools, and plans. These expectations will initially be included as compliance conditions for existing, or new NPDES permits.

Until this TMDL is modified, point source permits will be reissued as they are re-opened or expire to include limits for complying with the established waste loads. Where reduced limits are needed, compliance schedules will be specified for reaching those limits. Nonpoint sources will be addressed through specified schedules for developing and implementing needed control programs. Any 401 certification must demonstrate compliance with implemented control plans prior to the Department granting certification. All requirements, limitations, and conditions are set forth in the attached schedules as follows:

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SCHEDULE A

Pollutant Discharge limits not to be Exceeded

1. Pollutant Discharge Limitations not to be Exceeded After TMDL Issuance. These interim limits identifying current conditions. It is the state's policy that no additional loads be permitted until the TMDL is achieved.

UNKNOWN

2. Pollutant Discharge limitations for the Development of Program plans, not to be exceeded after compliance with the TMDL. These limits are preliminary and the Department expects modification as the TMDL is developed. The limits provide guidance for the development of pollution control plans and appropriate mixing zones. The TMDL will allocate portions of the loading capacity to nonpoint sources and as yet unquantified loads from known and unknown sources and future growth and development.

PRELIMINARY ALLOCATIONS

For application to mixing zones

Allocations by percent of ambient criteria value

001	(W) LA	10%	Background + Reserve
002	LA	30%	Urban Stormwater Runoff (100+pipes)
003	WLA	30%	Combined Sewer Overflows (13)
004	WLA	1%	Metro - Saint Johns Landfill
005-NNN	WLA	29%	Other Point Sources, Potential WLA (at 1% per Source)

Allocations are arbitrary. No information exist that will allow loads to be calculated. The very limited ambient data prevents the calculation of ambient water quality concentrations.

Allocations will be applied for mixing zone evaluations. Permits must meet all applicable mixing zone requirements. Additionally, applicants must demonstrate that their WLA is less than or equal to the percentage distribution of the loading capacity at seasonal low flow condition. The allocations apply to all parameters listed above. In addition to standard mixing zone requirements permits must characterize their waste stream and the impact of their discharge on the sediment quality within the mixing zone.

The Department has not yet determined how to apply the allocations, especially for chronic levels, to the temporary discharges of stormwater and CSOs. Flow augmentation, if applied, may also modify the distribution of waste loads. Additional data from stormwater, cso, or mixing zone analysis would also used to refine and modify TMDLs for toxins.

SCHEDULE B

Minimum Monitoring and Reporting Requirements

(unless otherwise approved in writing by the Department)

1. Ambient Compliance Monitoring. The City of Portland, METRO, and the Department shall operate a receiving water monitoring program to evaluate the effectiveness of the TMDL and to guide development of any additional control strategies. The ambient monitoring program shall consist of the following:

To Be determined as per number and location of sites for

- Annual Fish Tissue
- Annual Sediment
- Bi-annual Water Collum

2. Source Compliance Monitoring. The following source monitoring program will be conducted by:

- 2.1 The City of Portland to define waste loads being discharged to the Columbia Slough:

<u>Source</u>	<u>Parameter</u>	<u>Minimum Frequency</u>	<u>Type of Sample</u>
1 CSOs (Outfall 001) through NNN)	Priority pollutants sediment quality (discharged from CSO) Mixing Zone sediments	Event based Initially	Grab(s) "
2 Stormwater	Priority Pollutants sediment Quality (discharged)	Event based	Grab(s)

- 2.2 Metro to define waste loads being discharged to the Columbia Slough (including the North Slough or via groundwater)

1 Landfill Leachate (Outfall 001) through NNN)	Priority Pollutants Mixing zone analysis	Bi-annually Initially	Grab
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- 2.3 All point sources discharging to the Columbia Slough

1-nnn Sources	Priority Pollutants Mining Zone Analysis	Initially Initially	Grab
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Initially: the need for routine sampling and frequency of sampling will be determined upon review of the initial waste characterization and mixing zone analysis

3. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless other test procedures have been approved by the Department.

Event based monitoring requirements will be conducted as approved by the Department for a representative number of CSOs and stormwater samples and frequencies.

Metro will need to establish a monitoring program which identifies leachate locations and monitors an approved representative number of leachate discharge locations.

4. Reporting Procedures. Monitoring results shall be reported on approved forms. The reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the following month.

SCHEDULE C

Compliance Conditions and Schedules

1. Within 18 MONTHS of adoption of this TMDL, the City of Portland shall submit a plan and time schedule to the Department describing how and when the city will modify its sewerage facilities to comply with the WLA identified in this TMDL.
2. Within 180 days of the adoption of this TMDL, the City of Portland shall submit an interim nonpoint source pollution control plan for to the Department. This plan will be used by the Department as the basis for demonstrating compliance with water quality requirements for any activities requiring certification by the Department. This plan shall be interim until a basin wide NPS management plan is adopted by the city to achieve compliance with the LAs in this TMDL.
3. Within 18 MONTHS of the adoption of this TMDL, the City of Portland shall submit a plan defining how they will comply with the LAs defined in this TMDL.
4. Prior to approval of a closure plan by the Department, METRO will be required to submit a water quality control plan that identifies anticipated loads to the Columbia Slough and how and when activities will be implemented to comply with the WLA defined in this TMDL, and describes an appropriate monitoring plan to demonstrate compliance. For any proposed discharge of leachate to waters of the state Metro must define an appropriate mixing zone for the mixing of waste and receiving water.
5. Within 5 years of the approval of implementation plans for the Columbia Slough by the Department of Environmental Quality, Schedule A, section 1, of this TMDL will be replaced by section 2 of Schedule A.
6. Within 6 months the City will provide the Department a description of how the city will develop and calibrate a load generating model for stormwater runoff and CSO discharges to the Slough. The model, once calibrated, will be required to simulate the affect of alternative strategies on loads generated. Monitoring requirements for model development and calibration are expected to much more intensive than the Compliance Monitoring outlined in schedule B, and are therefore separated from the minimum compliance monitoring requirements. This requirement will be incorporated into the City Program Plan.

7. Within 6 months the City will provide the Department a description of how the City will develop and calibrate a receiving water quality impact model. The model will be expected to simulate the water quality resulting from the CSO and stormwater control options assessed as required in condition 6. Monitoring requirements for model development and calibration are expected to be much more intensive than the Compliance Monitoring outlined in schedule B, and are therefore separated from the minimum monitoring requirements. This requirement will be incorporated into the City Program Plan.
8. Within 9 months the City will provide the Department with a description of how the City proposes to model and verify the mixing zones of each CSO to the Columbia Slough. The Department expects that mixing zone analysis will define receiving water body mixing characteristics, sediment quality where influenced by the mixing, whole effluent bioassays, and priority pollutant scans for discharged water and sediments.
9. Prior to reissuing any permit, which may discharge to the Slough or its tributaries under any conditions, the applicant will provide the mixing zone requirements defined in condition 8.
10. Within 3 months the City of Portland and Metro will enter into memorandum of agreements with DEQ which describe the Department's expectations from Program plans and other requirements of this TMDL. Any appropriate schedules application of the models currently being developed or required by the Department to modification of the TMDL may be described in these memorandums. Memorandums or agreement will be included as part of the TMDL.
11. Within 1 year the City of Portland will provide the Department a draft of their program plan. This draft will describe the accomplishments to date. The Department anticipates that the newly promulgated USEPA stormwater rules will require a draft permit within one year. This draft report will fulfill the EPA requirements.

SCHEDULE D

Special Conditions

1. An assessment report will be prepared by the City of Portland which describes the data collected, model development and calibration, for a dynamic model to evaluate ambient responses to control alternatives for CSOs, unidentified urban NPS loads and urban stormwater loads. Allocations will be reviewed and may be modified using information presented in this report.
2. A biennial report will be submitted by the City of Portland which describes the effectiveness of their nonpoint source control programs towards attaining water quality standards in the Columbia Slough. This report will be submitted to the Department by January 1st on even numbered years for incorporation into the state-wide water quality assessment.
3. The Department and the City of Portland will use the assessment report and other information from the monitoring program to continually evaluate the effectiveness of this TMDL. If the data indicates adjustments are needed, the TMDL will be reopened. Wasteload allocations and load allocations may be redistributed. The final TMDL may exceed the loading capacity for the stream, under alternatives being reviewed and identified as "conditional approval".
4. The City of Portland, METRO and DEQ will establish a memorandum of agreement describing time frames for review and application of the models being developed for application and refinement of the preliminary allocations (schedule 2, for development of Program Plans).
5. All sources which may discharge to the Slough will initially be required to characterize their waste stream and conduct mixing zone analysis to the satisfaction of the Department. Routine monitoring will be incorporated into this TMDL and permits as required.

(11/27/90)
(Robert Baumgartner)
(11-14-90)

PUDDING RIVER TMDL REPORT

1. Background--Water Quality Management
2. Background--Pudding River
3. Pollution Concerns and Sources
4. Data Collection and Monitoring Results
5. Dissolved Oxygen
6. Fecal Coliform Bacteria
7. Water Quality Modelling
8. Pollution Control Strategy--TMDLs and Allocations
9. Implementation

Technical Appendix

PUDDING RIVER TMDL REPORT

1. BACKGROUND--Water Quality Management

Water quality management in the state of Oregon is guided by the federal Clean Water Act of 1972 (as amended by the Water Quality Act of 1987), Oregon's Revised Statutes (ORS), and Oregon's Administrative Rules (OAR Chapter 340). Water quality standards are adopted and enforced to protect the beneficial uses of the state's waters. Beneficial uses include public and industrial water supplies, irrigation, livestock watering, water-contact recreation, aesthetics, boating, fish passage and rearing, fishing, aquatic life, wildlife, and hunting. Protection of water quality in Oregon is largely achieved through issuing and enforcing discharge permits.

The current focus of Oregon's water quality program is on "water quality limited" streams. These are streams where uses are limited by inadequate water quality. Violations of water quality standards are occurring on these streams even though permit requirements for waste treatment are being met. Maximum allowable pollutant loads must be established for water quality limited streams, as required by Section 303 of the federal Clean Water Act. The pollutant loads are referred to as Total Maximum Daily Loads, or TMDLs. A TMDL is the total amount of a pollutant that can enter a waterbody without causing a violation of the water quality standard. TMDLs may be set for several different pollutants for a given stream.

In the past, permits were written using criteria based on technology, e.g., requiring a sewage treatment plant to use secondary treatment processes. Recently, the permit process has shifted to a water-quality-based approach. Under the TMDL process, permit decisions for point source discharges and control programs for nonpoint sources are now made by considering the overall chemical, physical, and biological health of the receiving stream rather than being based primarily on technological requirements for the treatment facilities. The water-quality-based management approach places more emphasis on controlling a wider range of pollutants (including nutrients, metals, and toxics) in addition to monitoring and regulating "traditional" organic pollutants, such as biochemical oxygen demand (BOD).

In order to determine which streams will have TMDLs, monitoring data is evaluated with respect to water quality standards. If standards are being violated frequently and/or severely and controls have been attempted using permit limitations, a stream will be designated as water quality limited and a TMDL will be established.

Sources which are contributing pollutants to the stream will be allotted a portion of the total load. Allotments for nonpoint sources and natural background sources of pollutants are referred to as load allocations or LAs. Allotments for point sources are referred to as wasteload allocations or WLAs. The allocations include both existing sources and reserves for future sources. The Total Maximum Daily Load, or TMDL, is the sum of the individual wasteload allocations, load allocations, and reserves. The TMDL must not exceed the stream's loading capacity, which is the greatest amount of loading that a waterbody can receive without violating water quality standards.

Establishing a TMDL for a water quality limited stream involves studying existing data, conducting intensive surveys to collect additional data to answer specific questions, using mathematical models to evaluate data and simulate stream conditions, calculating the TMDLs, and distributing wasteload and load allocations. Public hearings are held and public comment is solicited on the TMDL and on alternative strategies for implementation.

As a result of a lawsuit by the Northwest Environmental Defense Council in 1986, the U.S. Environmental Protection Agency and the Oregon Department of Environmental Quality (DEQ) have agreed to a time schedule for complying with the TMDL requirement. TMDLs will be set for two water quality limited streams each year until all are completed.

2. BACKGROUND--Pudding River

The Pudding River is located in western Oregon near Salem. The river originates in the low Waldo Hills and flows sluggishly in a northerly direction for 62 miles. It follows a meandering channel with little slope, flowing past the communities of Silverton, Mt. Angel, and Woodburn. Along the way, Butte, Bear, Abiqua, and Silver Creeks flow into the Pudding River. The Pudding empties into the Mollala River, which flows into the Willamette River near Wilsonville at river mile 36.

The Pudding River basin covers 480 square miles and forms roughly the western half of Marion County. Agriculture is the predominant land use in the drainage basin. Water from the Pudding River is used primarily for irrigation to maintain the basin's high agricultural productivity. The river supports a warm-water game fishery and provides recreational opportunities for the residents of Marion County. Steelhead and spring chinook salmon use the Pudding as a migration route to reach tributary streams. Salmon are not known to spawn in the mainstem Pudding River; it is considered a "non-salmonid-producing" stream.

3. POLLUTION CONCERNS AND SOURCES

The Pudding River was identified as a water quality limited stream in January 1987. Data indicated that water quality standards were being violated for dissolved oxygen and fecal coliform bacteria. DEQ is in the process of setting a Total Maximum Daily Load (TMDL) for dissolved oxygen. Establishment of a TMDL for fecal coliform bacteria has been deferred pending consideration of changes in the water quality standard for that parameter.

Violations of water quality standards in the Pudding River occur mostly during the summer months during periods of low river flow. During those times, point source discharges of pollutants have a major influence on the quality of the receiving water.

Point sources:

Table 1 lists the main point sources of pollution in the Pudding River basin. The point sources which discharge directly to the Pudding River are required to have National Pollution Discharge Elimination System (NPDES) permits. Within the Pudding basin, current NPDES permits are issued to Silverton, Woodburn, Mollala, Mt. Angel, Gervais, and Hubbard sewage treatment plants, and Agripac. Additional point sources land irrigate their effluent or may be discharging without a permit. Mallorie's Dairy holds a no-discharge Confined Animal Feeding Operation (CAFO) permit.

AGRIPAC INC.--Agripac discharges processed cannery waste to the Pudding River. Agripac's discharge, in combination with Woodburn's discharge, results in violations of water quality standards under current conditions. The TMDLs and wasteload allocations will require a reduction in the oxygen-demanding loads from Agripac.

WOODBURN--The major point source discharge to the Pudding River is the city of Woodburn's sewage treatment plant (STP). Dilution of the effluent is provided by the river. The amount of dilution will vary as river flow changes throughout the year but must stay within permit limits.

Current permit limits for Woodburn are not stringent enough to provide for adequate dilution of effluent. Woodburn is allowed by permit to discharge 3.1 million gallons per day (mgd) or 4.8 cubic feet per second (cfs) during the summer. A seven-day-average low flow of approximately 50 cfs occurs every other year in the Pudding River near Aurora. Based on that flow and Woodburn's discharge volume, a dilution ratio of 10.4 can be calculated. According to the guidelines of the Oregon Water Quality Standards (OAR 340-41-375(1) (c)), a dilution ratio of 15 is required. The existing dilution ratio of 10.4 during critical summer low flows is thus not adequate; under those conditions, the discharge would exceed dilution requirements by fifty

percent. The TMDL will require reduced oxygen-demanding loads from Woodburn to ensure adequate dilution ratios during low flows and to prevent oxygen sags.

MALLORIE'S DAIRY--Mallorie's Dairy has been observed to discharge a high-strength waste stream to the Pudding River. Although these discharges did not occur at the times when field samples were taken (in conjunction with critical low flows), analysis suggests that if a discharge of that type were to occur during a low flow period, violations of water quality standards would result. Mallorie's Dairy does not have an NPDES permit; the dairy has a CAFO permit which does not allow discharge at any time. The dairy will not be given a wasteload allocation. Assurances must be made that discharge will not occur.

HUBBARD--The city of Hubbard discharges to Mill Creek, a tributary to the Pudding River. Mill Creek enters the Pudding River below the area where water quality violations occur. Establishing TMDLs on the Pudding River will probably not affect Hubbard's NPDES permit. DEQ has little or no information describing the impact of this discharge on water quality; an intensive mixing-zone survey designed to evaluate permit conditions for the Hubbard Sewage Treatment Plant needs to be conducted.

MOLLALA--The city of Mollala discharges to Bear Creek, a tributary to the Pudding River. DEQ has little or no information on the impact of this discharge on Bear Creek. The city has two options in its discharge permit: discharge to Bear Creek or use the effluent for irrigation water (land apply). Mollala currently land applies its effluent during the critical summer months. There does not appear to be a reason to discontinue land application, and as long as application continues, no wasteload allocation is required for Mollala.

MT. ANGEL--The city of Mt. Angel discharges to a small creek which is a tributary to the Pudding River. The city has elected to discontinue discharging during the summer low-flow period. The TMDLs and wasteload allocations will define the conditions under which Mt. Angel may discharge; the conditions will be specified in a seasonal discharge permit.

SILVERTON--The city of Silverton discharges to Silver Creek, a major tributary to the Pudding River. These loads do not appear to influence the dissolved oxygen violations observed below Woodburn. Available data suggest, however, that Silverton may not be achieving their permit level of 10 mg/l BOD or achieving dilution requirements at low-flow conditions. Observed dissolved oxygen values are above the 6 mg/l standard identified for the lower river, but have fallen below the 90% saturation level required for salmonid waters. DEQ needs to conduct an intensive mixing-zone survey in Silverton Creek to evaluate the permit requirements for the Silverton Sewage Treatment Plant.

GERVAIS--The city of Gervais has no summer discharge and is unlikely to be affected by this TMDL.

MT. ANGEL MEAT--The stream closest to Mt. Angel Meat is Zollner Creek. No discharge from Mt. Angel Meat is allowed; no wasteload allocation will be given.

AVISON LUMBER--Avison Lumber holds a general log-pond permit which does not allow discharge. No wasteload allocation will be given.

Table 1.
Point Sources in the Pudding River Basin

Facility	Permitted Discharge Quantity	Location River Mile	Type of Waste
Silverton STP	1.0 mgd	Silver Cr to Pudding R	Domestic sewage
Hubbard STP	0.34 mgd	Mill Cr to Pudding R	Domestic sewage
Avison Lumber	no NPDES permit	Bear Cr to Pudding R at RM 16	Log-yard runoff
Mollala STP	0.79 mgd	Bear Cr to Pudding R at RM 16	Domestic sewage; pre-aerated lagoon
Woodburn STP	3.1 mgd	RM 27 Pudding R	Domestic sewage; rotating biological filter
Agripac Inc.	2.0 mgd	RM 27 Pudding R	Fruit/vegetable waste
Gervais STP	no summer discharge allowed	RM 30.5 Pudding R	Domestic sewage
Mt. Angel STP	0.36 mgd	RM 34 Pudding R	Domestic sewage; trickling filter
Mt. Angel Meat	no NPDES permit	----	Processing waste
Mallorie's Dairy	CAFO permit; no discharge allowed	----	Irrigation or Honey Wagon

Nonpoint sources:

In addition to the impact of point sources, the cumulative effect of nonpoint and background sources must also be considered when evaluating the capacity of the river to assimilate pollutants. Runoff from agricultural land provides a significant load of biochemical oxygen demand, bacteria, ammonia, and organic nitrogen to the Pudding River and its tributaries. These agricultural loads lead to water quality violations and the loss of beneficial uses in the tributaries, and they contribute to violations of the dissolved oxygen standard in the mainstem of the Pudding River.

A reduction in the amount of nitrogen and other oxygen-demanding materials from nonpoint sources needs to occur not only in the Pudding but also in its tributaries. Loads coming from tributary streams such as Zollner Creek have as much impact as the minor STP discharges on water quality in the Pudding River. Dissolved oxygen violations have been observed in both Zollner Creek and the Little Pudding River although no major point sources are located on these streams.

Additional concerns have been raised by resource agencies and individuals regarding nonpoint sources in the Pudding Basin. The Oregon Department of Fish and Wildlife has stated that sediment in the river is degrading fish habitat. Agricultural interests are concerned with apparent toxicity in the Little Pudding River. These problems have not been addressed by DEQ and are not a component of the TMDL. Problems due to sediment, toxicity, nutrients, and bacteria need to be addressed in the nonpoint source plans for the basin.

4. DATA COLLECTION AND MONITORING RESULTS

Regulatory standards for the Pudding River have been adopted for several water quality parameters. These include temperature, turbidity (also referred to as total suspended solids or TSS), pH (a measure of acidity), dissolved oxygen, fecal coliform bacteria, and dissolved chemical substances.

Four DEQ monitoring stations are located on the Pudding River for routinely collecting instream water quality data. This "ambient" data is stored in a computerized data base called STORET. The ambient monitoring stations are located in the Pudding River at:

- Highway 213 (river mile 49.9) (STORET # 402213)
- Mt. Angel/Brooks (river mile 40.7) (STORET # 402560)
- Highway 211 (river mile 22.9) (STORET # 402317)
- Highway 99E (river mile 8.1) (STORET # 402594)

Several intensive water quality surveys were conducted during the summer of 1989. The data were compared to the regulatory standards to determine if violations had occurred. In addition,

ambient and intensive data were used in mathematical models to predict water quality impacts during varying conditions, such as changing flow or temperature.

Monitoring results are summarized in Table 2 for several parameters for the summer season of 1989. Summer is the season of primary concern due to the low-flow conditions in the Pudding River during that time. Table 2 lists the median values (values which fall in the middle of the data set) and the regulatory standard for each parameter.

Diurnal (24-hour cycle) monitoring for dissolved oxygen was conducted for three-day periods during the summer and fall of 1989 using automated monitoring devices left in the stream for the full sampling period. The data provided by the monitors were used to develop equations which allowed data from samples collected at any time of the day to be converted to a minimum value for that day. Because of the natural variation in some parameters throughout the course of a day, this conversion allowed data to be more accurately compared to data from other days.

On August 15, 1989, the estimated minimum dissolved oxygen value for the area between river mile 23.5 and river mile 17.2 was 5.3 mg/l. Both the observed minimum value and the estimated daily-average value were 5.9 mg/l, which is below the standard.

Table 2.
Water Quality Summary for the Pudding River
Summer 1989

Parameter	Applicable WQ Std. or Criteria	Hwy 99E RM 8.1	Hwy 211 RM 22.9	Mt. Angel Brooks RM 40.7	Hwy 213 RM 49.9
Dissolved Oxygen am	6.0	6.5	5.5	6.6	4.7
Dissolved Oxygen pm	6.0	8.1	8.4	8.5	8.0
BOD-5	*	1.0	0.8	1.2	1.8
Total Phosphorus	0.1	0.23	0.43	0.09	0.065
Turbidity	**	4.0	6.0	3.5	--
Total Susp Solids	*	110	90	61	--
Fecal Coliform	200	93	80	195	240
Ammonia (NH ₃)	***	0.05	0.07	0.03	0.06
Nitrite-Nitrate Nitrogen (NO ₂ -NO ₃)	*	1.40	1.40	0.55	0.44

Values are reported as medians.

BOD-5 represents the five-day biochemical oxygen demand.

- *: no applicable standard
- ** : standard allows an increase of up to 10% above background
- ***: standard is dependent on pH, temperature, and toxicity; turbidity may impact ambient dissolved oxygen levels

Units:

- Turbidity as JTU
- Fecal coliform bacteria as MPN/ml (most probable number of colonies per 100 milliliter)
- All others as mg/l (milligrams per liter)

5. DISSOLVED OXYGEN

The dissolved oxygen concentration in a stream results from a balance of processes which consume oxygen and processes which restore oxygen. Fish and other desirable aquatic organisms require a high level of dissolved oxygen to survive. Dissolved oxygen is restored mostly from the atmosphere (reaeration) and from photosynthesis. It is depleted mostly by the activity of bacteria which break down organic matter (particularly by the decay of algae) and by chemical processes such as the conversion of ammonia to nitrate (nitrification).

Pollutant loads are typically described in terms of their biochemical oxygen demand (BOD) or their chemical oxygen demand (COD). The BOD test determines the amount of oxygen required by bacteria to decompose the load of organic matter in a sample of water. The COD test measures the amount of oxygen required to convert both biologically-available and non-biologically-available organic matter to carbon dioxide and water. The BOD test is generally more representative of actual instream conditions. Results can be obtained much more quickly with the COD test, however, which makes it valuable in certain situations such as a waste spill.

If the pollutant load on a waterbody is light, the replenishment of oxygen can make up for the loss. This is referred to as assimilation. If the load is heavy, oxygen may be depleted to a point where fish cannot survive and aerobic organisms are destroyed. A stream's ability to assimilate waste is largely determined by its concentration of dissolved oxygen. As oxygen is depleted, anaerobic organisms, which can live without oxygen, will take the place of the aerobic organisms, resulting in odors and nuisance conditions. The oxygen-depleted water may travel a considerable distance before natural purification processes can restore the oxygen levels.

Temperature will also influence the dissolved oxygen concentration in a stream. The maximum possible concentration of dissolved oxygen in water (referred to as the saturation level) is largely determined by the water temperature. A stream's ability to process oxygen-demanding loads (its assimilative capacity) is greater at lower temperatures because dissolved oxygen saturation is greater at lower temperatures. This allows an extra reserve during colder weather. Conversely, when temperatures are higher, the stream has a reduced capacity to process wastes.

For example, cold water at 15°C (59°F) can hold up to 10.1 mg/l of dissolved oxygen. After meeting the minimum of 6.0 mg/l required by water quality standards, the stream would have a reserve assimilative capacity of 4.1 mg/l. In contrast, warm water at 24°C (75°F) can hold only 8.4 mg/l of dissolved oxygen, allowing a reserve capacity of only 2.4 mg/l above the minimum standard of 6.0 mg/l. This reduction in assimilative capacity at warmer

temperatures and low flows limits the amount of waste which can be tolerated and may prohibit discharge.

Because of the effects of seasonal differences in temperature and streamflow on a stream's assimilative capacity, wasteload limits will be set by month for varying flow and temperature conditions as necessary to meet water quality standards. The summer limits will typically be the most restrictive, with greater discharge allowed during the winter when flows are high and temperatures are low.

Dissolved oxygen standard: The Oregon Department of Fish and Wildlife has identified the lower mainstem of the Pudding River as providing passage for warm-water game fish but not providing for salmonid production. The Oregon Water Quality Standard for dissolved oxygen in the Pudding River states that: "The dissolved oxygen concentration shall not be less than 6 mg/l" (OAR 340-41-445 (2)(E)(ii)). That standard is the minimum value that the stream should not fall below at any time so that the beneficial uses of aquatic life, fisheries, and salmonid migration will be protected. Because the standard is stated as an absolute value, the TMDL is calculated to attain 6.0 mg/l as a minimum.

To account for the fact that dissolved oxygen will vary with the time of day due to the effects of sunlight, measured dissolved oxygen concentrations are reported as a daily average so that data are comparable from day to day. To maintain a minimum value of 6.0 mg/l, the average value will have to be higher to allow for daily variation and still achieve the standard.

Diurnal measurements collected in the critical oxygen-sag area of the Pudding were used to estimate a daily variation of 0.5 mg/l in the dissolved oxygen measurements. To allow for a variation of 0.5 mg/l above or below the measured value, a daily average of 6.5 mg/l must be maintained to achieve a minimum value of 6.0 mg/l.

As can be seen in Table 2, the standard for dissolved oxygen was violated in the Pudding River. The dissolved oxygen violations observed in 1987 were more frequent and severe than those observed during summer surveys in 1989. Minimum observed values fell to near 5.0 mg/l in the 1987 surveys. Observed violations occurred below the Agripac and Woodburn STP discharges.

The low dissolved oxygen measurements in the Pudding River usually occurred in the early morning hours. These low readings might be explained in part by daily fluctuations in algal growth and respiration levels, since algal activity and consumption of oxygen is greatest in the morning. It does not appear, however, that the growth of algae in the Pudding River is excessive or usually results in nuisance conditions. Nuisance growth may be prevented by the relatively high levels of suspended solids and turbidity in the Pudding River which limit the amount of light available for growth of algae, or it may be prevented by other natural conditions.

Nitrogenous oxygen demand is the primary factor leading to the observed violations of the oxygen standard in the Pudding River. Organic nitrogen and ammonia enter the stream from both point source discharge and nonpoint source runoff. Nitrogenous demands result from the conversion (or nitrification) of organic nitrogen to ammonia (nitrogen plus three hydrogens, NH_3) to nitrite (nitrogen plus two oxygens, NO_2^-) to nitrate (nitrogen plus three oxygens, NO_3^-). The oxygen that becomes associated with the nitrogen is no longer available to fish as dissolved oxygen.

Data collected at the monitoring station at Highway 211, below the Woodburn Sewage Treatment Plant discharge, showed an increase in ammonia and nitrate and a decrease in oxygen, indicating the effect of the STP effluent on the stream. Other low oxygen levels in the upper section of the river, along with relatively high concentrations of BOD, indicate a significant impact from nonpoint sources.

6. FECAL COLIFORM BACTERIA

The presence of fecal coliform bacteria is commonly used as an indicator of pathogen contamination in surface waters. Elevated levels of fecal coliform bacteria have been observed in the Pudding River. The violations of the standard for fecal coliform bacteria appear to be related to nonpoint sources.

7. WATER QUALITY MODELLING

QUAL2E, a steady-state, hydrodynamic model, was used to study the impact of wasteloads on instream water quality and the effects of varying streamflow and weather conditions. The model was used to predict daily average values of dissolved oxygen based on measured (observed) data. In addition to data from monthly monitoring, two detailed data sets were used for the modelling efforts. The data were collected during two intensive surveys which covered the area of the stream from just above the two major discharges to below the area of low dissolved oxygen (referred to as the dissolved oxygen sag). A third survey indicated that dissolved oxygen was not a concern when streamflow was high.

During the surveys, dissolved oxygen was measured along with several parameters which affect the level of oxygen in the stream: biochemical oxygen demand, nutrients, total suspended solids, ammonia and nitrate (used for determining the rate of nitrification), and temperature. These parameters were measured going downstream (longitudinally). Automated monitors which were left in place in the stream measured dissolved oxygen, temperature, and pH continually for three days and were used to determine the daily variability in dissolved oxygen. Knowing the variability in dissolved oxygen with respect to time made it possible to compute daily averages from the observed dissolved oxygen values. Since dissolved oxygen varies with the time of day, these corrections were necessary for accurate modelling.

Wasteloads and tributary loads were also monitored. Dye tests (time-of-travel tests) were used to estimate velocity as a function of flow. Knowing the velocity, it is possible to convert a change in concentration with distance to a change in concentration over time. In calculating flow-related TMDLs, concentration as a function of time is used to predict concentrations under varying flow conditions.

An initial laboratory measurement for the decay of organic matter (loss of BOD) was used as the starting point for calibrating the model. Decay rates and temperature coefficients were adjusted to fit the observed data for the loss of BOD and ammonia and for the increase in nitrates. The dissolved oxygen sag can be explained as an effect of the input of ammonia and BOD (which depletes oxygen) and reaeration (which replenishes oxygen). Reaeration is modelled as a function of stream velocity, depth, and turbulence using the O'Connor and Dobbins method (1958).

The first set of survey data was used to establish the initial conditions for the model (calibration). The second set of data was used to test whether the model could successfully predict dissolved oxygen under different background conditions (verification). Observed data for parameters such as upstream concentrations, flows, wasteloads, tributary loads, and weather conditions were entered into the model. The values which the model computed for dissolved oxygen were compared to the actual values of dissolved oxygen which were observed during the field survey. The values predicted by the model were found to reasonably match the observed values.

Once an acceptable model was established, the model was used to calculate wasteload and load allocations. There may be several sets of wasteload and load allocations that will achieve water quality standards for the Pudding River. The modelling approach allows alternative scenarios to be evaluated with respect to their impact on water quality. Different sets of values for streamflow, sunlight, temperature, turbulence, and boundary conditions (upstream loads and tributary loads) were entered into the model. The model calculated the level of dissolved oxygen which should be present under those conditions.

Initial modelling assumed an equitable distribution of wasteload allocations between the major sources (Agripac and Woodburn) and similar permit conditions for efficiency of waste removal. Alternative sets of wasteload allocations for varying flow conditions were entered into the model to determine the resulting levels of dissolved oxygen. Nonpoint source inputs were added to the model to test their effect on dissolved oxygen. The modelling process was repeated until the resulting dissolved oxygen concentrations met water quality standards and satisfied TMDL requirements. A margin of safety was added into the calculations to allow for inherent errors in measurements and modelling.

8. POLLUTION CONTROL STRATEGY - TMDLS AND ALLOCATIONS

There is no unique set of wasteload and load allocations that will achieve the water quality standards for the Pudding River. Several methods, identified in the available literature for deriving equitable allocations, have been reviewed as potential allocation strategies. WLA alternatives are shown below. The Department will meet with a work group of affected parties to review and evaluate these alternatives. Then the Department will decide which alternative to implement.

The specific wasteload allocations may depend on the control strategies chosen by the sources that are discharging to the Pudding. For example, it would be quite appropriate to reallocate loads from a source electing not to discharge to one electing to discharge during the critical periods.

The wasteload allocations must result in reduced flow-related loads of ammonia and oxygen-demanding material during the early summer (June), and little or no discharges of ammonia during critical low-flow periods (July and August). As stream temperature decreases in the fall (September), wasteload allocations would be increased.

Allocations also need to be reserved for future growth and development. In a water quality limited stream, it will be difficult for new sources to obtain a wasteload allocation. Permit decisions will depend on the availability of reserve assimilative capacity and on any additional reductions in existing point and nonpoint sources. They will also depend on whether the new source is upstream or downstream from the major existing sources and whether dissolved oxygen sags would overlap. Although the preliminary TMDL for the Pudding River allocates all of the assimilative capacity immediately below the major sources to existing sources, it may be decided that a portion of the available allocations should be held in reserve for future growth and development.

WASTE LOAD ALLOCATION ALTERNATIVES

OPTION 1: Summer Season - Flow Based

Option 1-A allocates loads based on achieving equal effluent concentration for the two major point sources, Agripac and Woodburn:

Stream Flow	CONCENTRATION (mg/l)				MASS lbs/D	
	AMMONIA	ORG. N	CBOD ₅	UBOD	UBOD WLA AGRIPAC	WOODBURN
≤ 30	0.25	1.25	10	22	250	300
30-60	1.0	1.25	10	25	283	342
60-90	1.8	1.25	10	29	328	397
90-120	3.4	1.25	10	36	407	493
≥ 120	5.25	1.25	10	50	566	685

Design flows are Agripac 2.1 cfs, Woodburn 2.54 cfs. Mass loads may be calculated as (1) Design flow cfs * concentration mg/l * 5.39

UBOD is calculated as (2) (Ammonia + Organic Nitrogen)*5.57 + (CBOD₅/0.66) in mg/l

Ammonia is the biochemical oxygen demand component having the greatest influence on the observed oxygen depletion. If a source discharges ammonia concentrations below the discharge level the mass load may be modified using equation 2.

Option 1-b allocates loads by equal effort of removal calculated as a percent of the estimated influent concentrations applied to the effluent ammonia criteria. The equal effort calculations estimate the influent UBOD at Agripac at 1000 mg/l, and at Woodburn at 345 mg/l. Therefor Agripac is allocated 1000/(1000+345)*100 percent of the available ammonia criteria. [modifications to alternatives 1-b and 2-b will be made based on input from the point sources regarding their influent quality]

Ammonia was employed as the base for allocating loads because data analysis indicates it is the primary component of oxygen demand leading to the observed standards violations. As with option 1-a source has the option of converting ammonia loads to other component if the achieve better than the design requirements.

Q CFS	AGRIPAC (2.15 cfs)			WOODBURN (2.54 cfs)			BKG + NPS
	NH mg/l	UBOD mg/l	Mass lbs/d UBOD	NH mg/l	UBOD mg/l	Mass lbs/d UBOD	Mass lbs/d UBOD
≤30 (15)	0.38	24	276	0.14	22	326	323
30- 60	1.53	30	646	0.56	25	412	647
60- 90	2.76	37	427	1.01	27	505	1293
90-120	5.21	50	582	1.91	32	688	1940
≥120	8.04	66	762	2.94	38	900	2587

OPTION 2: "Spring" (June), "Low flow" (July and August), and "Fall" (September) seasons with flow based allocations.

Option 2-A Allocations calculated on equal effluent concentration. The organic nitrogen levels are constant at 1.25 mg/l, and the CBOD₅ at 10 mg/l. Ammonia concentrations vary with flow. As with option 1, loads may be modified according to equation 2 if the effluent quality for ammonia is below the discharge criteria.

	Equal Effluent Ammonia UBOD Criteria		MASS LOADS for UBOD (lbs/d)		
			AGRIPAC	WOODBURN	BKG
June	≥ 150	10.00 (76.5)	886	1047	3234
	100-150	9.00 (71.0)	822	972	2156
	50-100	4.80 (48.0)	556	657	1078
	(30) ≤ 50	1.80 (31.6)	366	433	647
July & August	> 100	4.00 (43.7)	505	598	2156
	60-100	1.80 (31.6)	366	433	1293
	30-60	1.00 (27.3)	315	373	647
	(15) ≤30	0.25 (23.2)	268	316	323
Sept.	≥ 100	Waste Load Allocations do not apply			
	60-100	12.0 (87.4)	1013	1196	1293
	30-60	5.90 (54.1)	626	740	647
	(15) ≤30	2.80 (37.1)	430	508	323

OPTION 2-B Same as option 2-a, with the ammonia criteria calculated using equal effort as outlined in option 1-b. As with other options, if a source produces a higher quality effluent than identified in the ammonia criteria, allocations may be modified according to equation 2. Nonpoint source LAs are calculated using 4.0 mg/l UBOD.

		AGRIPAC			WOODBURN			BKG+NPS
		AMMONIA	UBOD	WLA	AMM.	UBOD	WLA	lbs/d
		mg/l	(mg/l)	lbs/d	mg/l	(mg/l)	lbs/d	lbs/d
June	≥ 150	18.0	(120)	1393	6.8	(59)	1646	3234
	100-150	15.0	(104)	1203	5.7	(53)	1421	2156
	50-100	8.5	(68)	791	3.1	(39)	935	1078
	(30) ≤ 50	3.2	(40)	455	1.1	(29)	646	647
July &	> 100	10	(76.5)	886	3.2	(39)	2156	2156
August	60-100	2.7	(36.6)	423	1.0	(27)	1294	1294
	30-60	1.5	(30.0)	347	0.5	(24)	647	647
	(15) ≤ 30	0.3	(23.4)	271	0.1	(22)	323	323
Sept -	> 100	WLAs do not apply						
	60-100	18	(120)	1393	6.8	(59)	1646	1294
	30-60	9	(71)	822	3.3	(40)	972	647
	(15) ≤ 30	4	(44)	506	1.6	(31)	598	323

9. IMPLEMENTATION

A program describing the strategies for achieving allocations should be developed by the point source dischargers within 18 months after the distribution of the final WLAs. Following the development of these program plans, the department will need to make the appropriate permit modifications.

A Memorandum of Agreement with the Department of Agriculture should specify their commitment to develop a nonpoint source management plan for the Pudding River Basin. The development of prescribed management practices to control nonpoint sources of pollution (referred to as Best Management Practices) is needed to prevent excessive nitrogen and organic matter from entering the streams and tributaries. The reductions will vary depending on the degree of impact. Load reductions in heavily impacted streams may need to be on the order of seventy-five percent or more.

The Department will recommend to the Water Resource Department that the Pudding River be withdrawn from additional water rights appropriation until the nonpoint source control plans are implemented.

A target compliance date after which no discharge to the Pudding River which causes the TMDL to be exceeded will be allowed is December 31, 1995.

PUDDING RIVER--TECHNICAL APPENDIX

- T-1. Hydraulics Estimates
- T-2. Flow Balance
- T-3. Laboratory Tests for BOD Conversion
- T-4. Pudding River TMDLs Refined Using QUAL2E
- T-5. Current Conditions
- T-6. Modifications to QUAL2E Model for
 Pudding River TMDL
- T-7. Sediment Oxygen Demands

PUDDING RIVER--TECHNICAL APPENDIX

T-1: HYDRAULICS ESTIMATES

DEQ conducted several "dye studies" to determine the time of travel (TOT) for two sections of the lower portion of the Pudding River. Results varied in terms of accuracy. The dye tests demonstrate that measured velocities are very similar in the lower Pudding (between RM 27 and 15) for flows below 60 cfs. Hydraulic barriers, such as the numerous debris dams and the remnant concrete-sill dam (named Falls #1), act to impede velocity and flow during low-flow conditions.

Velocity estimates varied both by the subsection for which the estimates were made, by multiple dye drops within the study reach, and by calculation of velocity between sub-reaches. For the set of points a to b to c, the velocity between b and c is calculated by:

$$\frac{[RM (a \text{ to } c) - RM (a \text{ to } b)]}{[TOT (a \text{ to } c) - TOT (a \text{ to } b)]} * \frac{ft}{mi} * \frac{hours}{second}$$

where TOT equals time of travel in hours. Average flow for a given reach (Q) was calculated as: $[(Q_{upstream} + Q_{downstream})/2]$.

Flow estimates are derived from stage-discharge curves empirically developed for several locations on the Pudding River. The variation in flows listed below are primarily due to the different locations that were sampled during the dye tests.

Date	Location: River Mile	Flow (cfs)	Velocity (m/s)	Comments
6/21/89	27 - 6.1	129 - 202		Unreliable
8/1/89	27 - 17.6			
9/26/89	17 - 8.1	22.5 - 49	.17 - .24	Lower section
10/3/89	27 - 17.5	62.5 - 65	.28 - .46	Multiple dye drops

The stage-discharge curves were developed using three to five representative flow and discharge measurements. For several of the stations, including key tributaries, an adequate number of measurements were not collected, apparently due to a decision by personnel from the DEQ laboratory. Similarly, flows were not taken at all sampling sites during the dye studies. The reasons for the failure of the monitoring personnel to collect a complete data set has not been adequately explained. The hydraulic relationships are difficult to estimate with the available data.

Power Functions

Power functions, developed by Leopold and Maddox, provide an empirical relationship between physical stream factors and streamflow. Several alternative power functions were calculated using different approaches. The resulting data were used in calibrating the model.

Equation	Typical range for the power term
velocity, $V = aQ^n$	0.5 (0.4 to 0.6)
depth, $D = bQ^m$	0.4 (0.3 to 0.5)
width, $W = cQ^f$	0.1 (0.0 to 0.2)

Recognizing that streamflow is the product of cross-sectional area and velocity and that cross-sectional area is the product of width and depth, it can be shown that the sum of the exponents ($n+m+f$) is 1.0. Plotting the $\text{Log}_{\text{base } 10}$ of Q with the $\text{Log}_{\text{base } 10}$ of the physical stream factors of velocity, depth, and width provides the information for defining the equations. From the plots, the slope provides the power term (n,m,f) and the intercept at $Q = 1$ provides the remaining term (a,b,c). These relationships apply to free-flowing streams. Impounded reaches in rivers have exponents of m and f equal to 0.0. It is therefore appropriate to develop site-specific data. The availability of data for empirically developing the power functions is limited, however.

Using all of the available data, the power functions were estimated as:

$$\begin{aligned} V &= 0.028 Q^{0.654} && \text{using three dye tests below RM 27} \\ D &= 1.15 Q^{0.293} && \text{using stage-discharge curves near RM 27} \\ W &= 70 Q^{0.053} && \text{width observed at stage sites.} \end{aligned}$$

Considerations:

- The stage-discharge curves may not provide an accurate estimate of the depth relationship. The locations used for flow measurements were selected for high-velocity profiles and therefore occurred at free-flowing areas with constrictions, such as bridge crossings.
- The high-flow data for velocity are suspect at best. Very minor meter response was used as the "dye peak." It may not be appropriate to rely on this data to empirically determine the power functions.

The low-flow data appeared to provide a much different relationship than that observed during the high-flow dye study. The low-flow data provided a much flatter response with respect to velocity. The low-flow power functions (for flows less than or equal to 70 cfs) as estimated are:

$$V = 0.089 Q^{0.36} \quad \text{low-flow period}$$

$$D = 0.410 Q^{0.59}$$

$$W = 0.750 Q^{0.05}$$

These low-flow power functions are appropriate for the Pudding River for flows at or below 70 cfs between RM 27 and 15. The single representative dye test below RM 15 resulted in slower velocities than estimated by the above power function. The velocity function was adjusted to predict the observed slower velocities in the lower river by changing the "a" term to 0.05, resulting in $V = 0.05 Q^{0.36}$.

No dye tests were conducted above RM 27. The channel morphology and flow characteristics of the Pudding River do not change dramatically above where the dye tests were conducted. The primary differences are an increase in slope and the influence of several major tributaries which enter above RM 27.

Power functions were estimated using Manning's equation. Manning's equation was developed with the data available for the Pudding below RM 27. The equation was modified for the increase in slope (0.000405) above RM 27 as defined by contours on USGS quadrangle maps. The Manning's equation estimate should provide a representative estimate of the flow relationships. From this modified equation, the power functions defined were:

$$V = 0.13 Q^{0.38} \quad \text{above RM 27}$$

$$D = 0.40 Q^{0.57}$$

$$W = 60.0 Q^{0.05}$$

Similarly, Manning's equation was used to estimate the power functions for Silver Creek, which receives loads from the Silverton STP. The slope of Silver Creek is 0.004781 ft/mi. The estimated power functions are:

$$V = 0.49 Q^{0.45} \quad \text{Silver Creek}$$

$$D = 0.20 Q^{0.45}$$

$$W = 12.0 Q^{0.10}$$

The estimates for Silver Creek are very rough and provide only a relative index of the flow relationships. The load from Silver Creek does not appear to greatly influence the substandard section of the Pudding River below RM 27. However, for calculating the TMDL, is it necessary to include all major point sources in the basin.

T-2: FLOW BALANCE

The flow balance for the Pudding River is empirically developed using observed relationships between monitoring sites, available flow statistics (from USGS), and flows estimated using drainage basin area, stream miles, location in the drainage, and altitude at the reference site.

The site at Highway 211 was used as the initial reference site. Highway 211 is located in the water quality limited stream section where most of the water quality violations have been observed. This was also the site where flow was monitored most frequently by DEQ.

Flow at Highway 99 (Aurora) was estimated from the regression equation developed using observed flows at Aurora coincident and dependent on observed flows at highway 211.

Flows for the Pudding River near Mt. Angel and Silver Creek were estimated from historical records. For these regressions, it was assumed that the critical low flows (i.e., 7Q10) occurred coincidentally throughout the basin. From these statistics the estimates for Silver Creek, Butte Creek, and the Upper Pudding were made dependent on observed flows at Aurora (Highway 99).

Estimates for other streams (Butte Creek, Little Pudding River, Zollner Creek, Bear Creek, Abiqua Creek) were made using regressions developed using flow dependent on land area, stream length, location in the basin, and altitude of the reference location for known gages. Flows for creeks without gages were extrapolated from these regression equations. Butte Creek was modified for additional flow that would occur below the gage site at Monitor.

Permitted point source flows were calculated as the four-month average that occurred from July to October 1989, reported as monthly averages on the discharge monitoring reports. For Silver Creek, the predicted flow value includes the flow from the sewage treatment plant. All remaining flow estimates are additive. No attempts were made to adjust for irrigation withdrawals.

Input flows were balanced with observed and predicted flows at the three reference locations in the Pudding River. Flows not accounted for were then calculated and termed "overland flow." Overland flow varied from both positive to negative values. Minor flow modifications were proportioned out from the tributary stream estimates to prevent negative overland flow values. It is possible that these negative values are the result of irrigation. However, since the negative values occurred at higher flows, it seems likely they are a result of overestimating un-gaged streamflows. This process allows us to identify specific inputs for desired streamflow statistics.

T-3: LABORATORY TESTS FOR BOD CONVERSION

Determining which term, or component, of BOD is being referred to in reported BOD measurements can be confusing. The DEQ laboratory routinely monitors BOD(5). Laboratory incubations were used to review the conversion between CBOD(5), BOD(5), UBOD, and UCBOD. From these relationships, it appears that BOD(5) provides a weak relationship to ultimate CBOD. However, the typical values fall near the default of 66% of BOD(5) as UCBOD.

Some data was collected for both BOD(5) and Ultimate BOD during the canoe trips. No effort was made to separate out NBOD as calculated by concentration of ammonia.

Parameter	edge of Woodburn mixing zone	QA for edge of Woodburn	upstream of Agripac	below Agripac
BOD(5)	3.2 mg/l	3.0 mg/l	1.0 mg/l	2.0 mg/l
% of UBOD	36 %	31 %	27 %	15 %
% of UCBOD	88 %	93 %	66 %	55 %
% of CBOD(20)	---	---	---	66 %
CBOD(5)	1.5 mg/l	1.3 mg/l	0.3 mg/l	1.2 mg/l
% of UCBOD	41 %	40 %	40 %	33 %
% of UBOD	17 %	13 %	13 %	9 %
NBOD(5)	1.3 mg/l	1.4 mg/l	1.4 mg/l	0.5 mg/l
% of UNBOD	26 %	29 %	29 %	8 %
% of UBOD	17 %	14 %	14 %	4 %
% of BOD(20)	---	---	---	5 %
UCBOD	3.6 mg/l	3.2 mg/l	1.5 mg/l	3.6 mg/l
NBOD(20)	5.7 mg/l	4.7 mg/l	1.3 mg/l	6.2 mg/l
UBOD	8.8 mg/l	---	3.6 mg/l	13 mg/l
CBOD(20)	---	---	---	3.0 mg/l
BOD(20)	---	---	---	9.3 mg/l

T-4: PUDDING RIVER TMDLs REFINED USING QUAL2E

Preliminary wasteload allocations relied on observed streamflows and temperatures during low-flow conditions and are therefore restricted to a limited number of observed flow and temperature regimes. To estimate TMDLs under other conditions, simulated temperatures for various flow conditions were used. The model was calibrated using data collected during intensive and ambient studies in August 1989.

Atmospheric data as measured near Salem was obtained from the NOAA National Climatological Data Center. Data from the date of sample collection and from the preceding two days were used as input to the model. The data in the following table were used to develop allocations. Median values for barometric pressure were used; other data represents the 20th percentile of average monthly conditions for the last five years.

Month	Julian Day	Air Temp., °F	Wet Bulb Temp., °F	Barometric Pressure, mm Hg	Wind Speed, MPD	Cloud Cover, Tenths
June	168	64.0	50.6	29.83	6.5	5.0
July	198	66.8	51.7	28.85	7.1	3.2
August	229	67.8	52.7	29.81	6.5	3.6
Sept.	260	62.7	49.3	29.81	5.5	3.8

Observed instream temperatures in the Pudding River exceed 27°C (81 °F) during summer low-flow conditions. The warm temperatures and low streamflow result in low assimilative capacity in the Pudding.

Allocations

Summer is the critical period for allocations in the Pudding River. Allocations for the months of June and September are based on flows. A flow of 25 cfs at Highway 211 (the 14Q2) was used to calculate load allocations for the months of July and August. Although additional flow-based allocations may be developed, the assimilative capacity will not significantly increase even at higher flows.

Wasteload allocations for point sources: Point source allocations were calculated by iteration using QUAL2E. For example, a minimum dissolved oxygen value was calculated for an assumed set of wasteload allocations and a given flow regime. Calculations were

repeated using different data for wasteloads and flows until the resulting dissolved oxygen value of 6.5 mg/l was achieved. It is estimated that maintaining a daily average of 6.5 mg/l will assure that the daily minimum level of dissolved oxygen will remain above the standard.

In the model, current volumes of waste discharge were used for the major sources:

Silverton	1.19 cfs	(0.8 mgd)
Agripac	2.16 cfs	(1.4 mgd)
Woodburn	2.54 cfs	(1.64 mgd)

The value used for Silverton was its current discharge rather than its permit load. The discharge for Mt. Angel was assumed to be zero to be consistent with its no-discharge permit.

Loads for Agripac and Woodburn were assumed to have equal quantities of TSS, UCBOD, NH_3 , and organic nitrogen. TSS was included to form a basis for estimating organic nitrogen loads. For this analysis, it was assumed that the discharged TSS was in the form of cells represented as $\text{C}_5\text{H}_7\text{O}_2\text{N}$ (molecular weight of 113). Nitrogen is stoichiometrically 12.39% bacterial cells by weight. A discharge of 20 mg/l TSS would yield 2.48 mg/l organic nitrogen.

The load allocations assume an overall reduction of 25% for ammonia, organic nitrogen, and CBOD from nonpoint sources. The reduction for Zollner Creek was assumed to be 65%. The nonpoint source reductions would increase the available supply of dissolved oxygen in the Pudding River above the major point sources and would reduce the amount of oxygen-demanding pollution entering the critical portion of the river. If nonpoint sources are controlled, the assimilative capacity available for the point sources would be increased. If nonpoint sources are not controlled, then the wasteload allocations for the point sources will need to be reduced.

- Alternative 1: Preliminary Allocations Assuming Equal Effluent, 25% Nonpoint Source Reduction

The following table presents alternative allocations for achieving the standard of 6.0 mg/l dissolved oxygen. No margin of safety is provided in these allocations, and no allocation is made for future growth and development. A 25% reduction in nonpoint source loads is assumed.

		Pounds Per Day By Source					
		AGRIPAC			WOODBURN		
Month	Flow (cfs) at Hwy 211	UCBOD	NH ₃	TSS	UCBOD	NH ₃	TSS
June	280	175	115	230	205	135	275
	200	175	88	230	205	200	275
	50	115	6	115	135	7	135
July	<50	115	4	115	135	4.5	135
Aug.	<50	115	4	115	135	4.5	135
Sept.	25	175	58	230	200	68	270
	60	175	80	230	200	95	270
	100	175	110	230	200	130	270

Review of the data suggests that very little benefit would occur by increasing the flow ranges during July and August. The 60Q2 estimated for the Pudding River at Highway 211 is approximately 50 cfs. The low-flow allocations result in effluent limits of 0.325 mg/l of ammonia at current discharge levels. Because this limit is not realistically achievable, it is most likely that the major sources would be required to use a "no-discharge" alternative to meet this allocation. The no-discharge period would be expected to extend for two months per year.

T-5: CURRENT CONDITIONS

Current loads to the Pudding River, as observed during the intensive August sampling trip, are roughly estimated at:

Source	Flow (cfs)	Observed During Intensive Sampling		
		UCBOD	TSS	Ammonia
Agripac	2.17	130	100	17
Woodburn	2.54	205	200	18
Source	Flow (cfs)	Typical Loads--Estimate		
		UCBOD	TSS	Ammonia
Agripac	1.91	300	100	25
Woodburn	2.54	270	200	68

The observed loads resulted in daily average dissolved oxygen values of 5.9 mg/l during the intensive survey. Flows were above 30 cfs and instream temperatures approached 23 degrees. Observed temperatures in the Pudding have exceeded 27 degrees during July and August in previous years. Minimum streamflows (7Q10) are estimated at 15 cfs. Observed minimum flows during 1989 were less than 20 cfs at Highway 211; minimum dissolved oxygen during 1989 was 5.1 mg/l.

T-6: MODIFICATIONS TO QUAL2E MODEL FOR PUDDING RIVER TMDLS

Hydraulics

QUAL2E allows two methods for describing stream velocity, μ , as a function of streamflow, Q . The options are either Manning's equation or power functions. The power function option sets $\mu = aQ^b$, where a and b are empirically determined constants. Ambient dye tests were used to collect information for evaluating the empirical constants.

The dye tests suggest that for flows between 20 and 60 cfs, stream velocity near the point source dischargers is similar (0.35 fps). Such a relationship would result in an equation where the "b" term is zero and the "a" term defines stream velocity independent of flow. The alternative model defines velocity as $0.35Q^0$.

The QUAL2E model input files have been modified to have constant stream velocity for the section of the Pudding below the point source discharges where the dye-test data indicated constant velocity below 60 cfs. The input files are only applicable for flows below 60 cfs.

Ammonia Decay

Ammonia decay is usually modelled as first-order decay. As described in U.S. EPA guidance manuals, ammonia decay is often modelled as having multiple steps for first-order decay. Multiple steps were used in the original model based on the observed instream decay rates. The observed and model-calibrated decay rates are higher below the point sources of Total Kjeldahl Nitrogen in the Pudding and appear to decrease downstream from the sources. The decay rates are modelled as a series of first-order decay rates.

The question of concern for calculating TMDLs is whether the decay rates are a function of concentration. Literature indicates that the decay rate of ammonia may be influenced by several factors, including physical factors and substrate concentrations. For example, shallow streams with large bottom-surface-to-volume ratios have been observed to have high decay rates. Decay rates dependent on substrate concentrations may be explained by a Michaelis-Menton type of kinetics. The growth of bacteria may be dependent on the amount of substrate (food). As the amount of substrate increases, the population growth of bacteria increases. The growth continues until the growth requirements of bacteria are saturated.

If the decay rates are dependent on substrate concentration, then as the TMDLs are implemented and substrate is reduced, the resulting decay rates would be expected to be lower than the previously observed decay rates. The dissolved oxygen depression, and therefore the assimilative capacity, is determined by the

combined effects of the rate of demand and the rate of reaeration. Reduced decay rates would alter the assimilative capacity of the Pudding River and would therefore influence the loading capacity and subsequent TMDLs.

If we assume that the decay rate is dependent on substrate, it is necessary to predict the decay rate to determine the TMDLs. To estimate the decay rate as a function of concentration in a particular section of the Pudding, the observed decay rate, $[\ln\{NH_3\}_{t0} - \ln\{NH_3\}_{tt}]/\text{Time}$, was plotted against observed concentration. The plot resulted in a linear equation of $-0.085 + 13.85\{NH_3\}$. Although the ammonia concentration appears in both the axes of this plot, it does provide an indication of the change in decay rate due to initial concentration.

Alternative TMDLs Using Updated QUAL2E

Applying the updated hydraulics estimates and the assumption that ammonia decay rates are dependent on ammonia concentration significantly increased the assimilative capacity available for wasteloads during summer low-flow conditions. The model was used to estimate wasteload allocations for differing flow conditions, such as the 30Q2 (monthly average low flow), the 7Q2 (weekly low flow), and the 7Q10 (critical low flow) periods. Conditions for an average July weather pattern and for a "warm" period were also evaluated.

Low-flow and maximum warm temperature: The analysis suggests that during the summer low flows ($\leq 30Q2$) and warm temperatures (maximum thermal input, July), stream temperatures will approach 25°C (77°F) from below the STP discharges to Aurora. Observed temperatures in the Pudding River immediately above the STP have been observed at 24°C in the afternoon and 22°C in the morning. The temperatures observed at Aurora approach 23.5° to 24°C in the morning and 27°C in the afternoon. The predicted temperatures appear to be reasonable estimates of the critical conditions that may exist during extended warm weather and low-flow conditions.

The analysis also suggests that very little, if any, assimilative capacity will exist at the critical low-flow warm-weather temperatures. Alternatives to application of critical low-flow wasteload allocations could include a no-discharge period for July and August when flows are below 35 cfs and daily averaged stream temperatures are near 25°C .

Alternative Wasteload Allocation Strategies

Artificial reaeration: Representatives of Agripac requested that DEQ review an alternative which relied on instream artificial reaeration of the Pudding River. The first assumption placed the artificial reaeration upstream of the discharges to provide greater assimilative capacity for the Pudding River. The aeration provided

150 lb/d of oxygen to attain near-saturation. No analysis was conducted to assure that supersaturation of gases other than oxygen would not occur. The second assumption placed an additional aerator of 150 lb/d of oxygen just below the Woodburn STP.

The analysis suggests that the effect of artificial reaeration would not be apparent for long distances below the point of application. Multiple appropriately-placed aerators could offset the oxygen demand placed on the stream. If placed effectively, greater wasteload allocations could be possible.

At this time, no wasteload allocations have been developed for any assumed level of artificial reaeration. A policy evaluation needs to be made to determine if reaeration would be a permissible approach for a point source wasteload allocation.

Nonpoint source load allocations: Nonpoint sources are estimated as both tributary inflow and as overland flow. Analysis suggests that some relief in wasteload allocations may occur through effective nonpoint source controls. Current analysis assumes no significant modification to nonpoint source loads.

Other strategies: Although there may be other alternative strategies that are more equitable, none have been extensively reviewed thus far. Because the oxygen-sag curves from Agripac and Woodburn overlap, the actions of one discharger could influence the alternatives available to the other.

T-7: SEDIMENT OXYGEN DEMANDS

Sediment oxygen demands (SOD) are a significant component of the oxygen balance in the Pudding River during summer low-flow conditions. The calibrated SOD rate was 0.25 grams/ft²-day (0.112 grams/m²-hr or 2.7 grams/m²-day).

The following table summarizes other model-derived SOD rates compared to measured rates as discussed in Terry and Morris (USGS). Terry and Morris suggest that the indirect method (calibration) may provide a more realistic measurement of oxygen demand than measuring individual points of SOD in situ.

Stream Name	Calibrated Range (mean)	Measured Range (mean)
Osage Creek	0.5 to 15 (5.9)	0.65 to 0.94 (0.7)
Illinois R.	2.4 to 6 (3.8)	0.08 to 1.82 (0.8)
White River	0.7 to 11 (6.7)	1.20 to 6.00 (3.1)
Spring Creek	1.0 to 18 (8.6)	0.66 to 1.58 (0.9)
Muddy Fork	2.8 to 4 (3.3)	0.70 to 3.20 (1.8)

Similarly, Whitemore found a poor correlation ($r^2 = 0.58$) between field and laboratory measurements. In situ measurements were consistently higher at low levels of SOD; the reverse was observed at high levels of SOD (U.S. EPA). Such errors indicate the need for improved methods for estimating SOD. A summary of rates measured in situ by Whitemore is presented in the following table.

Stream Name	Measured Range (mean)
Androscoggin River	0.2 to 1.18 (0.74)
Penobscott River	1.1 to 4.15 (3.04)
Presumscott River	1.5 to 6.4 (4.0)

EPA suggests that in situ methods are more credible than laboratory methods at this time. Ranges for SOD reported in EPA guidance include:

River Locations	Measured Range	Comments
Upper Wisconsin	0.022 to 0.91	Sullivan
Eastern U.S.	0.09 to 0.87	NCASI
Four eastern rivers below paper mills	2.0 to 33 and 0.9 to 14.1	Both ranges from NCASI; different measuring techniques
North Illinois	0.27 to 9.8	Butts and Evans
Eastern Michigan	0.10 to 5.3	Chiaro and Burke
New Jersey	1.1 to 12.8	Hunter, et al.
Sweden	0.3 to 1.4	Edburg and Hofsten
Spring Creek	1.7 to 6.0	McDonnell and Owens
England	1.5 to 9.8	Rolley and Owens
-Streams-	4.6 to 44	James

The model-calibration method for estimating SOD is subject to a reasonable range for SOD values. The SOD range estimated for the Pudding River appears to fall within the ranges observed for other streams.

DECISION PACKAGE # 103

STANDARDS AND ASSESSMENTS SECTION, WATER QUALITY DIVISION

TITLE

Water Quality Standards and Assessments Base Activity Funding

PURPOSE

This decision package is intended to provide the Department with resources to assess the quality of the waters of the state and develop the necessary water quality criteria to protect priority waters in critical basins. This package will assist the Department in meeting its statutory responsibility for maintaining water quality adequate enough to protect designated beneficial uses of the state's water. In addition, the Department is required under a U S District Court Order to develop total maximum daily loads (TMDLs) on water quality limited receiving streams at a rate of at least two per year. Under this process and Water Quality Act requirements, the Department must identify the assimilative capacity and establish total maximum daily loads (TMDLs), waste load allocations (WLAs), load allocations (LAs), and reserve capacity for receiving streams that violate instream water quality standards. This includes those receiving streams identified in Appendix A of DEQ's Biennial Water Quality Status Assessment Report as water quality limited under Section 303(d)(1) of the Water Quality Act. Water quality streams that fall on the Section 303(d)(3) list must also be evaluated to determine water quality status.

HOW ACCOMPLISHED

The Department needs to complete the following tasks:

1. Assess general water quality conditions on priority waterbodies and identify water quality standards violations,
2. Examine ten water quality limited receiving stream segments (303(d)(3)) per year to determine whether these streams require the establishment of TMDLs and develop on at least two water quality limited receiving stream segments (303(d)(1)) per year the needed interim TMDLs,
3. Complete extensive water quality investigations to determine for two water quality limited receiving stream segments (303(d)(1)) per year, the assimilative capacity, total maximum daily loads, interim waste load allocations (WLAs) and load allocations (LAs), and reserve capacity,
4. Establish through rulemaking appropriate water quality criteria necessary to protect water quality and implement the final TMDLs developed and the interim allocations of waste loads. The rules would also require responsible sources (both point and nonpoint) to develop program plans that

describe how they will achieve compliance with the TMDLs, WLAs, and LAs,

5. Review and approve program plans, establish final WLAs, LAs and reserve capacities and modify NPDES (National Pollutant Discharge Elimination System) and WPCF (Water Pollution Control Facility) permits where necessary to reflect the TMDL, WLA, LAs, individual control strategies, and incorporating appropriate compliance schedules. Review and approve associated water quality permit and standards certification actions for compliance with TMDLs and water quality standards. Modify existing or write new agreements with designated nonpoint source management agencies to place program plan elements into annual action plan schedules for the needed TMDL activities including the examination of both 303(d)(1) and (d)(3) receiving streams, and
6. Review and monitor compliance monitoring programs developed by the point and nonpoint sources to determine their compliance with the approved program plans.

STAFFING IMPACT

The work to be completed on the decision package will be conducted in the Water Quality and Laboratory Divisions. This package also includes base program fund shifts from federal and other funds to general funds.


Clerical Specialist (HQ)	0.75 FTE
TASK #1	
Principal/Exec Manager (HQ)	0.75 FTE
Chemist 1 (LAB)	0.50 FTE
Environmental Specialist 2 (LAB)	0.75 FTE
TASK #2	
Environmental Specialist 3 (HQ)	1.00 FTE
Environmental Specialist 3 (HQ)	0.75 FTE
Environmental Specialist 2 (LAB)	1.00 FTE
Chemist 2 (LAB)	0.50 FTE
TASK #3	
Environmental Specialist 3 (HQ)	0.75 FTE
Environmental Specialist 2 (LAB)	0.75 FTE
Chemist 2 (LAB)	0.75 FTE
TASK #4	
Environmental Specialist 3 (HQ)	0.50 FTE
TASK #5	
Environmental Specialist 4 (HQ)	0.50 FTE
TASK #6	
Environmental Specialist 3 (LAB)	0.50 FTE
	Total 9.75 FTE

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

MEMORANDUM

DATE: December 10, 1990

TO: Environmental Quality Commission
FROM: Fred Hansen, Director 
SUBJECT: EQC Work Session Item #2:
Discussion of Ballot Measure 5 and DEQ

Enclosed for your review is a summary of the Attorney General's opinion on ballot measure 5. It specifically addresses the issue of those government revenue streams (taxes and fees) that may be lost as a result of the measure. This is of great concern to the Department since some of our fees may relate to property possession (underground storage tank permit fees and motor vehicle inspection fees are examples).

Also enclosed is a Special Report recently prepared by a Portland law firm. The report discusses the affects of measure 5 on local government. It is felt that an understanding of the coming changes in local government financial and debt practices is necessary in order for the Department to effectively respond to the measure as well.

The following is a tentative outline for our further discussion of the issues at the work session:

1. Update on the continuing analysis of Measure 5 impacts on State government and DEQ
2. Summary of the status of a Governor's Recommended Budget for DEQ
 - a. Operating budget - 10% general fund reductions

\$1,339,461	Illegal drug lab cleanups
1,040,250	Sewer Safety net
60,000	Air Quality noise program
 - b. Pollution control bonds

Increase in pollution control bonding activity to fund the sewer safety net program and the state match for the State Revolving Loan Fund
 - c. Pollution control tax credits

Memo to: Environmental Quality Commission
November 29, 1990
Page 2

3. Summary of DEQ fees and Measure 5

a. Fees that are directly affected

Underground storage tank permit fee
Motor vehicle emission testing fee
Hazardous substance possession fee

b. Fees that may be considered for increases to
replace revenue lost under Measure 5

SUMMARY OF ATTORNEY GENERAL'S OPINION
Ballot Measure 5
September 7, 1990

NOTE: This summary was prepared for convenience purposes only. It is a brief but not definitive statement of the conclusions in the opinion. For the complete legal analysis, refer to Opinion No. 8216.

INTRODUCTION

* Once again the voters of this state have before them an initiative measure proposing to limit the amount of property taxes that may be raised to fund government operations. A series of 11 questions with numerous subquestions was asked concerning Ballot Measure 5.

* The opinion was requested by Senate President John Kitzhaber and House Speaker Vera Katz. (This is the eighth occasion since 1966 where the Attorney General has been asked to review proposed tax initiatives.)

Summary Explanation of Measure 5 and Its Effect on Taxation

* Ballot Measure 5 creates a two-part limit on the amount of property taxes that may be imposed on any particular property:

- taxes to support schools are limited to \$15 per \$1000 of value of the taxed property beginning in the 1991-92 fiscal year, and are reduced annually by \$2.50 to a permanent limit of \$5 per \$1000 of value during and after fiscal year 1995-96.

- taxes to support government operations other than schools are limited to \$10 for each \$1000 of value of the taxed property.

* Unlike previous property tax limitation measures which would have created limits on the rates at which government bodies could levy taxes, Ballot Measure 5 limits the amount of taxes that may be imposed upon any particular property. This limit is tied to the value of the property.

* In addition to ad valorem taxes, the limits of the measure affect a broad range of other government charges, such as timber severance taxes, urban renewal revenues, forest protection assessments, local system development charges and motor vehicle and aircraft registration fees.

* Unlike property tax limitation proposals reviewed in the past, Measure 5 prescribes the means by which taxes are to be reduced to come within the limits imposed. The measure provides that the total taxes imposed on property by each taxing unit are to bear the burden of the limits in proportion to the amount of tax they charge against property.

* During the first five years the measure is effective, the legislature is required to replace the funds lost by the public school system due to the measure's limits.

Explanation of Current System of Property Taxation and Effect of Measure 5

* Ad valorem property taxes are taxes imposed on property based on its value. These taxes are the primary source of tax revenue for local government units, including schools, cities, counties and special districts.

* Current constitutional limits remain applicable.

- Unlike property tax limitation measures submitted to the voters in the past, the proposed measure does not amend or repeal any of the existing constitutional limitations on the authority of government to levy taxes.

- No language in Measure 5 addresses in any way the levy authority of taxing units, either in terms of eliminating or changing that authority. Rather, the thrust of the measure is directed to the amount of money that can be collected from specific properties. That is, of whatever amount one or more taxing units may levy, only the amount specified in the measure may be imposed on a particular property.

* The limit applies to total taxes on each property within the specified categories.

- The measure creates a total dollar limit for taxes, as defined by the measure, that may be imposed on any particular property in each of two identified categories. The limit applies whether the taxes imposed are calculated on the basis of value or on some other basis.

- The measure establishes three specific exemptions to its limits: incurred charges, assessments for local improvements and certain bonded indebtedness. With these few exceptions, the measure applies to all taxes imposed on property.

* The limit applies to all property, real and personal.

- The measure limits the taxes that may be imposed on "any property." The measure does not define "property," nor does it limit its effect to a specific class of property.

- Because we assume voters are aware of the current system of taxation in this state and that they would intend the measure to operate within the existing system, we conclude that the limit applies to all classes of property, real and personal, tangible and intangible, that are currently subject to taxation.

* The measure defines "tax" as "any charge imposed by a governmental unit upon property or upon a property owner as a direct consequence of ownership of that property."

"Property" Subject to the Measure's Limitations

In addition to ad valorem property taxes, the following would be limited under the measure:

* Property Taxes Secured by Lien

- Special district assessments, including assessments by service districts, sanitary districts, weed control districts, street and highway lighting, drainage districts, water control districts and water improvement districts.

- Ad valorem serial levies for capital construction.
- Additional taxes and penalties imposed when property is disqualified from special assessment status.
- Payments in lieu of taxes for leased port property.
- Gross earnings taxes on rural telephone exchanges.
- Gross earnings taxes on electric transmission and distribution systems.
- Timber severance taxes.

Timber severance taxes (those taxes imposed in lieu of ad valorem property taxes) are assessed at rates of 6.5 percent on the stumpage value of timber harvested from privately owned land in western Oregon and 5 percent for timber harvested in eastern Oregon. Thus, should the measure pass, any taxes due would be substantially over the limits in the measure.

- Amusement device taxes.
- Manufactured dwelling assessments.
- Forest protection district assessments.
- Fire suppression assessments.
- Irrigation district assessments.

* Taxes on Property Not Secured by Lien

While not secured by liens, the following special purpose charges or assessments on individual real properties are subject to the limits of the measure:

- Seepage charges imposed by a city or county.
- Oregon Forest Land Protection Fund surcharge.
- City of Ashland Transportation Utility Fee.
- Washington County Traffic Impact Tax.
- Economic improvement district assessments.

* Taxes Imposed on Property Owners

The following fees and charges are not secured by lien. They are taxes imposed on property owners and are subject to the limits of the measure:

- Underground storage tank permit fees.
- Motor vehicle registration fees.
- Aircraft registration fees.

* Local Charges Not Specifically Imposed on Property or Property Owners as a Direct Consequence of Ownership

The following charges are imposed by local ordinance. Depending upon the provisions of the particular ordinance, these charges may be taxes subject to the limitations of the measure:

- Local system development charges.
- Local real estate transfer taxes.
- Sewer and water minimum charges.
- Dog license fees.
- Bicycle license fees.

Charges Not Subject to the Measure

* The following fees and charges are not subject to the measure's limits because one or more of the elements of the definition of "tax" in the measure is absent:

- City utility franchise fees.
- Utility privilege taxes.
- Voluntary payments by cities to schools in lieu of taxes.
- Voluntary payments for services by housing authorities to cities in lieu of taxes.
- Elevator license, inspection and certificate fees.
- Contracted cooperative rangeland protection.
- Ditch clearing by drainage district under owner default.
- Special vehicle registration plates.

Legislature's Obligation to Replace "Lost" Revenue

* The measure requires the legislature to replace from the state's General Fund any revenue lost by the public school system because of the limitations of the measure.

* The legislature is required under the measure to replace only those lost funds which were dedicated specifically and exclusively for educational services from pre-kindergarten through post-graduate. The replacement revenues also must be legally dedicated specifically and exclusively for educational services.

* The measure does not require replacement on a dollar-for-dollar basis to individual taxing units, but rather replacement of the aggregate of all such funds lost by the public school system as a whole.

* The legislature could satisfy its duty to replace lost funds by appropriating funds from the General Fund exclusively for educational services and allocating them anywhere within the "public school system," so long as the total appropriation equaled the amount lost collectively by the taxing units.

* The measure does not address, much less limit, the general authority of the legislature to pass laws providing funds to support schools. Thus, the measure would place no obligation on the legislature to continue current funding support for schools.

Effect of Measure 5 on Uniformity Clause

* In general, the uniformity clause of the Oregon Constitution requires uniformity in taxation, by property class, throughout the taxing unit. The provision permits reasonable classification of subjects for taxation, the exemption of certain property from taxation, and imposition of different rates of taxation on different classes of property.

* If adopted by the people, the measure would be the most recent expression of the people's will and would require that provisions of the measure control over other provisions of the constitution in case of conflict.

* Language in the measure that permits a property-by-property analysis of the permissible property tax collected for that property will almost certainly result in a conflict with the uniformity clause.

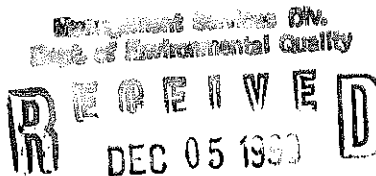
* The legislature could establish a different method of determining tax rates to maximize collection of taxes within the limits of the measure. Such a system might well result in some property owners paying higher taxes under this measure than they would under current law. The largest categories affected would be farm use and any property that is in a mix of districts where present rates do not reach the limit.

Other Features of Measure

* The measure would have no effect on the authority of a taxing unit to seek voter approval to establish a new tax base. A change in the levy authority of one taxing unit does not change the limit on the amount of taxes that may be charged against property. However, a change in the levy authority of one taxing unit may affect the amount of taxes other taxing units may charge on a particular property.

* Revenues from urban renewal tax increment financing are "taxes" within the definition of the measure. (That portion of the tax increment that is used to pay principal and interest on bonded indebtedness is not subject to the limitations.) Urban renewal tax increment revenues come within the "other than schools" category.

MR:mr
9698a



**A Special Report of the
Governmental Lawyers of the Portland Office**

*Bond Department: Douglas R. Courson, Kenneth E. Iltz, Richard D. Roberts and
Harvey W. Rogers*

*Public Law Department: Janet L. Atwill, Mark J. Greenfield, Peggy Hennessy,
Daniel H. Kearns and Edward J. Sullivan*

BALLOT MEASURE NO. 5: THE AFTERMATH

November 19, 1990

On November 6, 1990, the citizens of the State of Oregon approved Ballot Measure No. 5. The measure limits the ability of the state and its local governments to collect not only property taxes, but many fees and charges which have never before been considered taxes. The measure also creates substantial uncertainty about some financial and debt practices of Oregon local governments. A copy of the measure is attached.

This special report recommends that municipalities audit and modify their fee and charge ordinances to protect those fees and charges from unnecessary adverse effects of the measure. In addition, this report describes legislation which can mitigate the negative effects of the measure on local government debt and finances. This special report supplements our special report on the measure which is dated August 17, 1990.

PROTECTING REVENUES FROM THE MEASURE

The measure creates a new definition of "tax:" a tax is "any charge imposed by a governmental unit upon property or upon a property owner as a direct consequence of ownership of that property." This definition includes many fees and charges which were not previously taxes under Oregon law. The measure places a declining rate limit on taxes for schools and a limit of \$10.00/\$1,000 on taxes of all other governments. In this report, we refer to these limits as the measure's "rate limits." Taxes for most general obligation bonds are exempt from the rate limit. Other "taxes" are exempt from the measure's rate limits if they do not exceed the "actual cost" of services or improvements.

In many cases, a municipality will be able to modify its fees and charges so that they are either: (1) not taxes at all; or (2) are taxes which are exempt from the measure's rate limits ("exempt taxes").

The choice may have a critical impact on the financial flexibility of a municipality. Because exempt taxes can not exceed "actual cost," fees and charges which

are exempt taxes may not be used to subsidize unrelated activities. However, unless otherwise restricted, fees and charges which are not taxes under the measure may be used for any public purpose.

For example, suppose a city currently imposes a business district assessment on all property located in the downtown area. The assessment revenues are used to provide a variety of special services to the business district, including parking, frequent street and sidewalk cleaning and police services.

The assessment is a tax under the measure. The city could choose to modify the assessment so that it is not a tax, or so that it is an exempt tax.

If the city changes the assessment so that it becomes an annual fee charged for the privilege of doing business in the district, which was not supported by a lien on the property in the district, then the fee would not be a tax under the measure. If the fee was not a tax under the measure, a portion of it could be used to pay for the costs of unrelated services, such as police services outside the district, library services, or indigent care.

On the other hand, if the city changes the assessment to a fee for business district services, which is imposed on all property which subscribes for the service, then the fee is a tax, but it would be exempt from the measure's rate limits. Revenues from this fee, however, could not exceed the "actual cost" of providing the business district services, and could not, therefore, be used to provide unrelated services or services outside the district.

It is important to note that the word "tax" now has several meanings under Oregon law. This special report focuses on the measure's definition of "tax." Existing principles of Oregon law already limit the ability of local governments to use "fees" to raise general revenues. Under these principles, a fee which does raise general revenues is a tax, and is subject to limitations which are not discussed in this report.

The measure will reduce the taxes many local governments can levy. These tax revenues are often used to pay for the costs of general fund services, for which local governments often cannot easily charge fees. If a local government imposes charges that are not "taxes" under the measure, then the local government may be able to increase those charges, and use the increased revenue to replace lost tax revenues. If the local government imposes charges which are taxes under the measure, even though the taxes are exempt from the measure's rate limits, it appears that those charges cannot be used to pay for unrelated services, and could not be used to replace lost general fund revenues.

This report now discusses the following commonly imposed charges: **systems development charges, traffic impact fees, planning department fees, utility fees and charges, and animal registration fees**, and recommends that local governments perform an immediate audit of all their ordinances in order to protect those revenues from the adverse impacts of the measure.

Systems Development Charges

The measure defines a "tax" as "any charge imposed by a governmental unit upon property or upon a property owner as a direct consequence of ownership of that property." Systems development charges were not "taxes" before the measure, but many will be taxes now.

Some local governments collect systems development charges at the time building permits are sought. The charge must be paid in cash before permits are issued. Such a systems development charge should not be a tax under the measure, because it is a fee imposed on the activity of property development. Accordingly, the amount of the charge would not be limited by the measure. However, these charges would be limited by the new systems development charges statutes (ORS 223.297 to 223.314), which take effect July 1, 1991 (the "SDC statutes").

It is too early to tell whether the limits of the SDC statutes will have the same effect as the actual cost limits of the measure. However, the SDC statutes do place significant limits on the ability of local governments to use systems development charges to replace lost general fund dollars.

Other local governments require that property be connected to utility systems, impose systems development charges on the property at the time of connection, and secure the charge by a lien on the property. These systems development charges are much more likely to be considered taxes under the measure. As taxes, they will be limited by the measure.

Fees and charges may be taxes, yet not subject to the measure's rate limit, if the fees or charges are "incurred charges" or "assessments for local improvements." Incurred charges are charges a property owner can avoid or control. Assessments for local improvements are assessments for capital construction projects that add a special benefit to specific properties. Both incurred charges and assessments for local improvements are subject to the measure's requirement that they not exceed the "actual cost" of providing the service or benefit.

Fees and assessments qualify as "incurred charges" if a property owner can avoid or control such charges because:

- (i) the charges are based on the quantity of the goods or services used and the owner has direct control over the quantity; or
- (ii) the goods or services are provided only on the specific request of the property owner; or

(iii) the goods or services are provided by the governmental unit only after the individual property owner has failed to meet routine obligations of ownership and such action is deemed necessary to enforce regulations pertaining to health and safety.

A local government could attempt to structure its systems development charges so that they are "incurred charges." A systems development charge could be an incurred charge only if it can be avoided by the property owner. However, even if the charge is avoidable, local governments may have difficulties in identifying the particular good or service which is provided, and in demonstrating that the charge does not exceed the actual cost of providing the goods or services.

Obviously, local government cannot "provide the service" without infrastructure. However, calculating an "actual cost" of the service provided by a particular systems development charge may be difficult, and attempts to do so seem sure targets for challenge. See our discussion of the need for legislation defining actual cost, below.

A local government may find it easier to structure a system development charge so that it qualifies as an "assessment for local improvements." For a systems development charge to be an "assessment for local improvements," the charge must (1) be for a capital construction project which provides a special benefit only to the specific properties or rectifies a problem caused by those specific properties; (2) be imposed in a single assessment upon completion of the capital improvement; and (3) allow payment of the charge over not less than ten years.

Traffic Impact Fees

Traffic impact fees imposed on real property are severely at risk of being treated as "taxes." However, traffic impact fees do not inherently seem to be charges on property but, rather, are fees for increased street usage tied to the development of property. Hence, as with system development charges, careful re-drafting of ordinances may enable local government to impose such charges outside the limits of the measure.

As with systems development charges, local governments may have the option of changing their traffic impact fees so that they are not taxes for purposes of the measure. Alternatively, a local government may change the traffic impact fees so that they are incurred charges or assessments for local improvements, which are taxes, but not subject to the measure's rate limits.

If traffic impact fees are structured as taxes, then they will be subject to the "actual costs" limit of the measure, and will not be available to fund unrelated activities. Local governments selecting this option should prepare cost and impact analyses that substantiate the actual cost of the services and benefits for which the fee is imposed.

Planning Department Fees

Planning department fees imposed for inspecting, investigating, and processing applications for building permits, land partitions, zone changes, comprehensive plan amendments, and other activities should not be considered taxes under the measure, if (1) it is clear that the fee is imposed on the activity, rather than on the property; and (2) the fee is not supported by a lien.

The Oregon Attorney General has noted that it is possible to argue that a fee imposed on the activity of development is a tax under the measure, because it is a "charge imposed by a governmental unit . . . upon a property owner as a direct consequence of ownership" This issue could be raised in court by developers all over the state, if it is not settled by the legislature or the Oregon Supreme Court. We suggest that local governments attempt to have this issue settled by the legislature (see below under "Definition of Direct Consequences of Ownership").

To protect against the possibility that planning department fees will be treated as taxes under the measure we recommend that local governments develop cost accounting studies of their planning operations, so that planning department fees may be justified under the actual cost limits of the measure.

We note that many planning department fees will be limited by the SDC statutes.

Utility Fees and Charges

Sewer or water charges that governments assess against property may be "taxes" under the measure. Some of these charges can be modified easily so that they are either: (1) not taxes under the measure; or, (2) incurred charges which are taxes, but not subject to the measure's rate limits.

If all charges of a particular utility can be structured so that they are not taxes, then the utility's revenues will not be subject to the measure's actual cost limits. However, these charges may well be subject to existing limitations on the use of fees to raise general revenues. Local governments and their counsel should determine whether it is feasible to use utility revenues to replace lost general fund tax dollars.

If any of the utility's charges are taxes under the measure, and therefore not permitted to exceed actual cost, then it may be that all fees of that utility will need to comply with the measure's actual cost limits, unless the charges which are not taxes can be segregated and attributed to specific activities.

For example, if a water utility meters water service, charges customers in proportion to their usage, and does not lien customer property, the water service fees will not be taxes under the measure. This utility may be able to transfer revenues to the local

government's general fund. However, suppose the utility also charges a reimbursement fee when property is connected, and the fee is a lien on the property. The local government may find it difficult to qualify the reimbursement fee as an incurred charge, because the utility system is subsidizing the general fund. A citizen could therefore argue that all utility fees, including the reimbursement fee, exceed "actual cost."

This difficulty will be reduced or eliminated to the extent that the utility can demonstrate that the reimbursement fee is used exclusively to pay costs directly associated with the connection, and not to pay general system costs.

The example illustrates the potential value of "pure" utilities: utilities which charge no fees which are taxes under the measure. Such utilities may have more flexibility in using system revenues.

Unfortunately, this flexibility may be purchased at a substantial cost, since it may require utilities to avoid placing liens on real property. Eliminating liens as security for utility payments reduces the collectability of charges, and may ultimately reduce revenues. Local governments which choose to eliminate liens may need to consider screening the credit quality of their customers.

A good argument may be made that the measure only limits the ability of local governments to impose automatic liens on property. Voluntary liens may not turn a charge into a tax under the measure. For example, a utility may require an advance deposit of three months' service charges, or consent to a lien as a condition of providing service. Where a property owner is given a choice, the lien may not be "imposed by a governmental unit," so the charge would not be a tax under the measure.

Local governments which require mandatory sewer or water hook-ups may face special difficulties under the measure, because charges imposed in connection with mandatory hookups may not be "avoidable" by the property owner. Only "avoidable" charges may qualify as incurred charges. In limited circumstances, these charges may qualify as incurred charges which are imposed because the property owner fails to meet routine obligations of ownership; otherwise they are likely to be considered "taxes" which are subject to the measure's rate limits.

Animal Registration Fees

The measure may impact charges as far from conventional "property taxes" as animal registration fees. State law allows counties to impose licensing fees upon "owners or keepers" of dogs. Such charges may be interpreted as taxes on property owners as a direct consequence of ownership of property, particularly if every dog in the county must be licensed.

Local governments may be able to characterize animal control services as a fee that is performed for the benefit of animal owners. In which case, if the fee can be made "avoidable," and does not exceed actual cost, it may qualify as an incurred charge.

It may be simpler, however, to require animal keepers to license only those animals which are permitted outside of cages. This license fee would appear not to be a tax, because it is imposed on the activity of maintaining animals outside of cages. It also would appear to allow animal control officers to continue to impound all unlicensed animals they encounter outside of cages.

Consequences of Being a Non-exempt Tax

If a local government imposes a charge which is a tax, and which does not qualify under the measure's definitions of "incurred charges" or "assessments for local improvements," then the charge will be subject to the measure's rate limits. The effect of the rate limits will vary.

For example, a local government which is in an area where total taxes are below the measure's rate limits may be able to collect the full charge, as long as the charge, and all other such charges, do not cause total taxes to exceed the measure's rate limits.

A local government which is in an area where total taxes already exceed the measure's rate limits may be able to impose the charge, but may discover that it can collect only a portion of it. Moreover, the charge will reduce that local government's property tax levy, and the levy of all overlapping taxing districts.

Charges which have become taxes only because of the measure have the potential to seriously disrupt the collection of "normal" property taxes. For this reason, we suggest that local governments be prepared for the possibility that the legislature will eliminate or substantially limit the ability of local governments to impose charges which are taxes and subject to the measure's rate limits, unless those charges are "normal" property taxes. Please see our discussion below, under "Fixing the System So There Really Will Be a Tax Levy in 1991."

Need for Ordinance Audits

To protect revenues, local governments should immediately audit their systems of fees and charges to identify fees and assessments that may be considered taxes under the measure, and develop strategies which protect revenues and flexibility to the maximum extent permitted under the measure.

ADDRESSING THE UNCERTAINTIES

Bancroft and Special Assessment Bonds

Under the measure, local governments may no longer issue general obligation Bancroft bonds which are supported by an unlimited property tax, unless the bonds are approved by the voters. As Bancroft projects typically are small, and the benefits of the projects are restricted to limited areas, we believe that most local governments will not seek voter approval for their Bancroft bonds. These local governments may choose between limited tax Bancroft bonds and special assessment bonds.

Limited tax general obligation Bancroft bonds would be secured by assessments, the issuer's general fund, and whatever taxes the issuer could levy within the measure's rate limits. For issuers in areas that already exceed the measure's rate limits, attempting to levy a tax for limited tax Bancroft bonds would reallocate taxes among overlapping taxing bodies, but would not result in additional taxes being levied.

We suggest that local governments consider whether it is desirable to permit limited tax general obligation Bancroft bonds to be issued (since they could divert taxes away from general funds) and to consider lobbying for appropriate changes to the Bancroft bond statute.

Although Oregon law currently permits the issuance of special assessment bonds (bonds payable solely from assessments against benefitted properties), the statute does not allow local governments to pledge other funds and revenues to pay special assessment bonds. Issuers in other states (Washington, for example) secure their special assessment bonds with additional resources. We recommend that local governments lobby to have the special assessment bond statute amended to permit (but not require) local governments to pledge additional resources to pay the special assessment bonds, and permit the local governments to create pooled and separate reserves for such bonds.

To aid in securing special assessment bonds, it may be desirable to authorize local governments to fund special assessment bonds with accrued surpluses in existing Bancroft accounts. Under current law, these surpluses generally cannot be used until the Bancroft bonds are paid or defeased.

Urban Renewal Bonds

The effect of the measure on urban renewal agencies and tax increment financing is unclear, and therefore subject to substantial control by the legislature. The Association of Oregon Renewal Agencies is in the process of devising recommendations for legislation. It would appear that there are legislative options which allow urban renewal agencies to continue to operate, **without** depriving other taxing bodies of any revenues.

Allowing urban renewal agencies to continue to operate and collect tax increment revenues should benefit all taxing bodies which are limited by the measure, because urban renewal agencies fund development of taxable property. In the brave new world of the measure, new development and the accompanying increase in assessed valuation means additional tax revenues for taxing bodies which are subject to the measure's rate limits. For example, in spite of many school districts' long standing dislike of urban renewal agencies, those agencies may now represent one of the few chances for direct, local governmental action which will increase school districts' operating levies.

TANs

Tax Anticipation Notes are virtually the only survivors of the "war on arbitrage" which the United States Congress won in 1986. Under the proper circumstances, local governments still may issue tax anticipation notes, invest the proceeds, and keep all the investment earnings.

Unfortunately, the "proper circumstances" include an accurate prediction of the local government's cash flow deficit. Because budgeting for fiscal year 1991-1992 is likely to be severely disrupted, we expect that issuers may need to modify their TAN issuance practices.

For next fiscal year it may be appropriate to issue two separate series of TANs: one which is designed to capture the maximum federal tax benefit which is certain to be available, and the other designed to cover less certain deficits.

For example, if next July a school district is still uncertain of the amount of state school support it will receive, and cannot therefore reliably predict expenditures, the district may choose to do a small, conventional TAN issue in the amount of the certain deficit, together with a "line of credit" style TAN to cover cash flow needs in excess of those which are met by the first issue. The first issue would be relatively certain to capture the full federal arbitrage benefit, and the second issue would be certain to protect the district from cash flow difficulties.

Definition of "Capital Construction or Improvements"

The measure's rate limits do not apply to general obligation bonds which were issued by November 6, 1990, or which were approved by the voters, but only if the bonds are "indebtedness incurred . . . for capital construction or improvements."

As we noted in our August report on the measure, this provision may mean that unlimited tax general obligation bonds may no longer be issued to pay costs of acquiring assets, such as land or equipment.

We believe the Oregon courts will defer to a legislative definition of "capital construction or improvements" if the definition is reasonable under the terms of the

measure. Preliminary discussions with one of the measure's authors lead us to conclude that the intent of the authors was to prohibit issuance of unlimited tax bonds for intangibles, but permit the issuance of bonds for capital assets.

We therefore recommend that local governments lobby the legislature to enact a definition of "capital construction or improvements" which resembles "capital assets" as much as is reasonable.

For example, it should be reasonable for the legislature to determine that bonds are issued for "capital construction or improvements" if the **principal purpose** of the issue is the financing of one or more components of a construction project, or improvements to a construction project. Such a definition should allow financing the cost of land on which a construction project is located, either by itself or in connection with the construction costs, as well as the funding of reserves and payment of issuance costs.

It should be reasonable to define "improvements" to include costs of remodelling and rehabilitation of structures, **and** fixtures, equipment and other capital assets which are intended to be used and are expected to be located at the site of the construction project. Such a definition would permit a local government to finance a building, **and** the computers which will be located in the building.

Definition of "Actual Cost"

The measure provides two exceptions to its rate limits: "incurred charges" and "assessments for local improvements." Both of these exceptions are limited to "actual cost." We believe Oregon courts will defer to a legislative definition of "actual cost" if it is reasonable.

We currently understand that the purpose of the actual cost limit is to prevent local governments from replacing lost general fund dollars with revenues from incurred charges and assessments for local improvements. We do not believe the actual cost limit was intended to prevent local governments from providing utility services in a financially sound manner.

Therefore, we recommend that local governments lobby the legislature to provide a definition of "actual cost" that includes all costs reasonably attributable to providing the service or benefit under generally accepted accounting principles, including but not limited to funding of depreciation, amortization, reserves, coverage for revenue bonds, and payment of reasonable overhead expenses.

A reasonable definition of "actual cost" is vital to the financial viability of municipal utilities. We urge local governments to review their existing practices and consult with their engineers, accountants, finance professionals and lawyers to craft a workable, reasonable definition of "actual cost."

We also suggest that local governments begin cost accounting analyses of all fees and charges which are likely to be taxes under the measure, so that they will be prepared to demonstrate, on July 1, 1991, that the fees and charges comply with the measure's actual cost limits.

Definition of Special Benefit Only to Specific Properties

Assessments for local improvements may be imposed only for a project "which provides a special benefit only to specific properties or rectifies a problem caused by specific properties." In our previous report, we questioned whether the measure would prohibit assessments for projects which primarily benefit specific properties, but also provide a general benefit.

For example, the community as a whole benefits from taking residences off septic systems, and placing them on a sewer system. However, it is clear that installing sewage collection pipes next to the residences provides a special benefit to the residences. It should be made clear that an assessment for the cost of the sewage collection pipes will qualify as an "assessment for local improvements" under the measure, to avoid litigation by property owners.

It may, therefore, be desirable to ask the legislature to clarify that a project will be considered to provide a special benefit "only to specific properties" if it has a demonstrable benefit to specific properties which is unique to those properties.

Definition of "Direct Consequence of Ownership"

The measure defines a tax to include charges imposed "as a direct consequence of ownership of... property."

The Oregon Attorney General has noted that development of property could be construed to be so inextricably linked to ownership that a charge for development would be a tax imposed as a "direct consequence of ownership of... property."

We recommend that local governments ask the legislature to clarify that charges imposed in connection with commercial activities involving the use of land, including development, are not charges imposed as a direct consequence of ownership of property.

Failure to obtain this clarification could subject local governments to frequent and costly litigation.

Authorization of Refundings without Vote

The measure currently exempts taxes to pay general obligation bonds issued after November 6, 1990, only if "the question of issuance of the specific bonds has been approved by the electors of the issuing governmental unit."

Oregon law currently permits issuance of general obligation bonds without a vote to refund outstanding general obligation bonds.

It may be reasonable for the legislature to adopt laws permitting refunding of previously issued general obligation bonds without a vote, under circumstances where the refunding bonds do not exceed the limitations of the original ballot (General obligation bond ballots usually state the maximum term and maximum principal amount of the issue).

The validity of such a statute may need to be litigated before it can be relied upon by local governments.

We recommend that local governments seeking voter approval for general obligation bonds include in their ballots a request that the voters authorize not only the bonds for which approval is sought, but also bonds to refund those bonds. This addition to the ballot may allow future refundings without an additional vote.

Fixing the System So There Really Will Be a Tax Levy in 1991

Laws affecting taxes cannot take effect until ninety days after the end of the legislative session in which the laws are adopted. This means that the 1991 session of the Oregon legislature must adopt laws fixing the property tax system so that it can work under the measure, and then must get out of session in time to permit taxes to be levied in November of 1991.

The 1991 legislature will face an enormous temptation to stay in session until it has decided how it will fund replacement revenues for schools. We recommend that the legislature consider adjourning its regular session as soon as it has adopted the administrative provisions which are necessary to permit ad valorem taxes to be levied in November of 1991. The legislature could then call a special session immediately following the regular session to deal with the more intractable policy issues.

Without legislative help, the property tax system in Oregon will not work at all. We suggest that local governments remain sensitive to the overriding importance of fixing the property tax system so that taxes can be levied and collected according to the normal schedule.

The measure causes many fees and charges to become taxes which are not coordinated with, or integrated into, the ad valorem tax system. Local governments should attempt to devise a simple, workable way to integrate these charges with ad valorem taxes

and the measures rate limits. Without a simple way of integrating and coordinating these charges, the legislature may prohibit imposition of any charges which are "taxes" under the measure unless they are ad valorem property taxes, or are imposed on property which is not taxed by the ad valorem property tax system.

Such a prohibition may be in the best interests of local governments generally. These fees and charges can usually be imposed without a vote, and many governmental entities can impose them. In areas where taxes already equal or exceed the measure's rate limits, imposing a new charge will divert tax revenues from existing taxing bodies, if the charge is a tax under the measure.

For example, suppose a major Oregon city had a relatively inactive cockroach control district within its boundaries. Suppose further that the city was levying a tax of \$7.00/\$1000, and the county was levying a tax of \$3.00/\$1000. If the cockroach control district then adopted an ordinance levying a bug assessment of \$1.00/\$1000, and the assessment was a tax, the cockroach control district would get about \$0.91/\$1000, the city would lose about \$0.64/\$1000, and the county would lose about \$0.27/\$1000.

Local governments should consider whether the legislature should be encouraged to adopt a set of rules prioritizing access to taxing power under the measure.

Litigation

In this report we have occasionally mentioned that "courts will defer" to legislative action. Although the measure is an amendment to the constitution, and cannot be altered by the legislature, we believe that many of the issues which are most troublesome under the measure may be resolved in a reasonable manner by legislation.

In addition, the measure's limitations do not generally take effect until July 1, 1991, by which time the legislature should have considered most of these matters. Until the measure is in effect, and while legislation affecting an issue is pending, we believe most courts would refuse to decide an issue under the measure.

We therefore recommend that local governments focus primarily on legislative solutions to difficulties under the measure, reserving litigation for those issues which cannot be resolved favorably by legislation. We believe it will not be cost-effective to commence litigation at the present time on most issues which arise under the measure.

We do expect to be involved in the litigation of issues which are now ripe for litigation under the measure. For those issues, selection of the most compelling factual situations, the timing of the action, and the selection of the proper forum are crucial. We would be happy to discuss litigation possibilities on an individual basis.

Summary

The measure threatens to restrict an unprecedented range of fees and assessments that local governments currently impose. However, there are ways for local governments to reduce the fiscal harm which the measure may cause. **FIRST:** local governments should conduct an immediate audit and obtain skilled legal analysis of their systems of fees and charges, to determine which charges are in jeopardy. **SECOND:** local governments should modify affected charges in the manner which provides them the greatest flexibility and financial security. **THIRD:** local governments should work to achieve a satisfactory legislative resolution of many of the issues that arise under the measure. **FOURTH:** local governments should consider litigating those issues which are unlikely to be resolved in a satisfactory manner by the legislature.

Principal authors of this special report are Randall Baker, Esq. and Harvey W. Rogers

PUBLIC LAW IN THE PORTLAND OFFICE

The public law department of the Portland office of Preston Thorgrimson Shidler Gates & Ellis has 9 attorneys whose principal expertise consists of representing and serving as special consultants to local governments and state administrative agencies in matters involving general municipal law, municipal finance and taxation law, administrative law, planning/land use law, real estate law, natural resources/environmental law, and government relations. In addition, the Portland office has access to the regional resources of the firm of Preston Thorgrimson Shidler Gates & Ellis, including more than twenty other lawyers currently actively practicing governmental law. We believe our firm has the largest number of experienced governmental lawyers in private practice in the Pacific Northwest. Our lawyers would be pleased to assist you with matters arising under the measure, or with other public law issues.

The following governmental lawyers are in the Portland office:

Janet L. Atwill: Janet Atwill handles real estate, land use, and municipal law matters. She has worked intensively with local and state level land use authorities in urban housing matters.

Douglas R. Courson: Doug Courson began practicing bond law in 1973, emphasizing industrial development and hospital revenue bonds. He has written opinions on hundreds of millions of dollars of such transactions in the last few years. Doug has served as bond counsel on transactions in six states. Doug also has considerable experience in financing the needs of municipal utilities.

Mark J. Greenfield: Mark Greenfield practices in the areas of land use, real estate development, municipal, administrative and natural resources law. He has extensive experience advising business and government clients on complex land use issues, including major facilities siting, statewide goal exceptions, environmental regulations and permitting.

Peggy Hennessy: Peggy Hennessy practices in the areas of land use, municipal real property, and environmental law. She serves as assistant city attorney for two Oregon cities.

Kenneth E. Iltz: Kenneth Iltz specializes in the federal income tax aspects of municipal finance, including work related to private activity bonds, hospital bonds, housing bonds, advance refundings, arbitrage and arbitrage rebate. He has also represented issuers and purchasers of municipal bonds as bond counsel and underwriter's counsel.

Daniel H. Kearns: Dan Kearns practices in the areas of land use, municipal, administrative and environmental law. He spends considerable time advising various city departments on the legal aspects of their municipal operations.

Richard D. Roberts: Dick Roberts has been serving as municipal law advisor to Oregon local governments for more than 25 years. His practice, while quite varied, is focused primarily on "traditional" municipal finance: general obligation bonds, special assessment bonds, tax anticipation notes and other forms of long-term and interim borrowing. Dick frequently advises municipalities on such matters as local budget law, public contracting law and the open meetings law.

Paul R. Romain: Paul Romain practices governmental relations and administrative law, with a particular emphasis on lobbying at the local, state, and federal government levels.

Harvey W. Rogers: Harvey Rogers has been practicing bond law for 14 years. His experience ranges from general obligation bond issues through municipal utility revenue, private activity, housing and hospital revenue bond issues and advance refundings. He is principally known for "innovative financings" which meet clients' needs in novel and advantageous ways.

Edward J. Sullivan: Ed Sullivan has been instrumental in drafting land use and local government legislation. He currently serves as City Attorney for two Oregon cities and previously served as counsel to the Governor. Ed has focused his practice on land use and local government matters since 1969.

Appendix A

Text of Ballot Measure No. 5

AN ACT

Be it enacted by the People of the State of Oregon:

PARAGRAPH 1. The Constitution of the State of Oregon is amended by creating a new section to be added to and made a part of Article XI and to read:

SECTION 11b. (1) During and after the fiscal year 1991-92, taxes imposed upon any property shall be separated into two categories: One which dedicates revenues raised specifically to fund the public school system and one which dedicates revenues raised to fund government operations other than the public school system. the taxes in each category shall be limited as set forth in the table which follows and these limits shall apply whether the taxes imposed on property are calculated on the basis of the value of that property or on some other basis:

MAXIMUM ALLOWABLE TAXES
For Each \$1,000.00 of Property's Real Market Value

<u>Fiscal Year</u>	<u>School System</u>	<u>Other than Schools</u>
1991-1992	\$15.00	\$10.00
1992-1993	\$12.50	\$10.00
1993-1994	\$10.00	\$10.00
1994-1995	\$ 7.50	\$10.00
1995-1996	\$ 5.00	\$10.00
and thereafter		

Property tax revenues are deemed to be dedicated to funding the public school system if the revenues are to be used exclusively for educational services, including support services, provided by some unit of government, at any level from pre-kindergarten through post-graduate training.

(2) The following definitions shall apply in this section:

(a) "Real market value" is the minimum amount in cash which could reasonably be expected by an informed seller acting without compulsion, from an informed buyer acting without compulsion, in an "arms-length" transaction during the period for which the property is taxed.

(b) A "tax" is any charge imposed by a governmental unit upon property or upon a property owner as a direct consequence of ownership of that property except incurred charges and assessments for local improvements.

(c) "Incurred charges" include and are specifically limited to those charges by government which can be controlled or avoided by the property owner

(i) because the charges are based on the quantity of the goods or services used and the owner has direct control over the quantity; or

(ii) because the goods or services are provided only on the specific request of the property owner; or

(iii) because the goods or services are provided by the governmental unit only after the individual property owner has failed to meet routine obligations of ownership and such action is deemed necessary to enforce regulations pertaining to health or safety.

Incurred charges shall not exceed the actual costs of providing the goods or services.

(d) A "local improvement" is a capital construction project undertaken by a governmental unit

(i) which provides a special benefit only to specific properties or rectifies a problem caused by specific properties, and

(ii) the costs of which are assessed against those properties in a single assessment upon the completion of the project, and

(iii) for which the payment of the assessment plus appropriate interest may be spread over a period of at least ten years.

The total of all assessments for a local improvement shall not exceed the actual costs incurred by the governmental unit in designing, constructing and financing the project.

(3) The limitations of subsection (1) of this section apply to all taxes imposed on property or property ownership except

(a) Taxes imposed to pay the principal and interest on bonded indebtedness authorized by a specific provision of this Constitution.

(b) Taxes imposed to pay the principal and interest on bonded indebtedness incurred or to be incurred for capital construction or improvements, provided the bonds are offered as general obligations of the issuing governmental unit and provided further that either the bonds were issued not later than November 6, 1990,

or the question of the issuance of the specific bonds has been approved by the electors of the issuing governmental unit.

(4) In the event that taxes authorized by any provision of this Constitution to be imposed upon any property should exceed the limitation imposed on either category of taxing units defined in subsection (1) of this section, then, notwithstanding any other provision of this Constitution, the taxes imposed upon such property by the taxing units in that category shall be reduced evenly by the percentage necessary to meet the limitation for that category. The percentages used to reduce the taxes imposed shall be calculated separately for each category and may vary from property to property within the same taxing unit. The limitation imposed by this section shall not affect the tax base of a taxing unit.

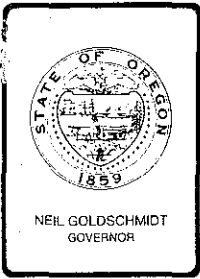
(5) The Legislative Assembly shall replace from the State's general fund any revenue lost by the public school system because of the limitations of this section. The Legislative Assembly is authorized, however, to adopt laws which would limit the total of such replacement revenue plus the taxes imposed within the limitations of this section in any year to the corresponding total for the previous year plus 6 percent. This subsection applies only during fiscal years 1991-92 through 1995-96, inclusive.

PARAGRAPH 2. The limits in Paragraph 1, above, are in addition to any limits imposed on individual taxing units by this Constitution.

PARAGRAPH 3. Nothing in this measure is intended to require or to prohibit the amendment of any current statute which partially or totally exempts certain classes of property or which prescribes special rules for assessing certain classes of property, unless such amendment is required or prohibited by the implementation of the limitations imposed by Paragraph 1, above.

PARAGRAPH 4. If any provision of this measure is in irreconcilable conflict with a provision of any other measure amending the Constitution of the State of Oregon submitted to the vote of the people of the State of Oregon and voted on at the same election as this measure, then the provision which is contained in the measure receiving a majority vote and the highest number of affirmative votes shall prevail and become operative.

PARAGRAPH 5. if any portion, clause or phrase of this measure is for any reason held to be invalid or unconstitutional by a court of competent jurisdiction, the remaining portions, clauses and phrases shall not be affected but shall remain in full force and effect.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: December 14, 1990
Agenda Item: B
Division: MSD
Section: Administration

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
 - Proposed Rules Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Public Notice Attachment

- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order Attachment

- Approve Department Recommendation
 - Variance Request Attachment
 - Exception to Rule Attachment
 - Informational Report Attachment
 - Other: (specify) Attachment

Tax Credit Application Review Reports:

Meeting Date: December 26, 1990
Agenda Item: B
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TC-2283
Weyerhaeuser Co.

Clarke's Sheet Metal 60-20 Bag
Filters.

TC-2300
Merritt Truax

Installation of leak detection and
overflow prevention on five
underground storage tanks in the form
of automatic tank gauges with alarms.

TC-2673
Michael & Bobbie Rainey

Installation of three fiberglass tanks
and piping, spill containment basins,
line leak detectors, monitoring wells,
overflow vent valves and underground
preparation for a tank monitor system
to be installed at a later date.

TC-2698
Pendleton Grain
Growers Inc.

Installation of one 12,000 gallon
fiberglass underground storage tank
and piping, fiberglass piping
replacement on three existing tank
systems, spill containment basins,
tank monitor and line leak detectors.

TC-2708
Star Oilco

Installation of epoxy lining in two
underground storage tanks, sacrificial
anode cathodic protection around tanks
and piping, spill containment basins
and monitoring wells.

TC-2814
Weyerhaeuser Co.

Dynatron 1100 m Opacity Monitor.

TC-2829
Priestley Oil
& Chemical Co., Inc.

Installation of an oil/water separator
and spill containment for 18 above-
ground tanks.

TC-2867
James & Bernice Voelz

Installation of two STI-P3 tanks and
fiberglass piping, spill containment
basins, tank monitor and float vent
valves.

TC-2892
Western Stations Co., Inc.

Installation of one double wall,
(fiberglass outer wall, steel inner
wall) underground storage tank and
fiberglass piping, impress current
cathodic protection on three existing
steel tanks, tank monitor, spill
containment basins, overflow alarm,
automatic shutoff breakaway devices,

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monitoring wells, Stage I vapor recovery equipment and piping for Stage II.

TC-2893
Columbia Helicopters, Inc.

Installation of fiberglass interior lining in two 70,000 gallon underground storage tanks, cathodic protection anodes, fiberglass piping, spill containment basins, float vent valves and tank monitor system.

TC-2933
Ellingson Lumber Co.

Sweco Vibro Energy Separator, Mac Style III Filter Receiver, Rotary Valve, and Conveying Equipment.

TC-3070
Metrofueling, Inc.

Installation of leak detection devices on three underground storage tanks in the form of automatic tank gauges with overflow alarms.

TC-3072
Metrofueling, Inc.

Installation of a tank monitoring system and overflow alarm.

TC-3181
G & P Farms

Used International 1566 Wheel Tractor.

TC-3197
Metrofueling, Inc.

Installation of an automatic tank gauge system, overflow alarm and oil/water separator.

TC-3199
Metrofueling, Inc.

Installation of leak detection and over-fill prevention on three underground storage tanks in the form of automatic tank gauges with overflow alarm.

TC-3200
Merritt Truax, Inc.

Installation of leak detection and overflow prevention on four underground storage tanks in the form of automatic tank gauges with an overflow alarm.

TC-3201
Merritt Truax, Inc.

Installation of leak detection and overflow prevention on three underground storage tanks in the form of automatic tank gauges with an overflow alarm.

TC-3202
Merritt Truax, Inc.

Installation of an automatic tank gauge system and an overflow alarm.

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TC-3203
Merritt Truax, Inc.

Installation of leak detection and overflow prevention on five underground storage tanks in the form of automatic tank gauges with alarm.

TC-3204
Merritt Truax, Inc.

Installation of leak detection and overflow prevention on five underground storage tanks in the form of automatic tank gauges with alarms.

TC-3208
Merritt Truax, Inc.

Installation of leak detection on four underground storage tanks in the form of automatic tank gauges with alarms.

TC-3210
Merritt Truax, Inc.

Installation of leak detection and overflow prevention in the form of automatic tank gauges with alarm.

TC-3216
G & R Seeds

Air Infiltration System.

TC-3219
Merritt Truax, Inc.

Installation of leak detection on four underground storage tanks in the form of automatic tank gauges with alarms.

TC-3240
Priestley Oil
& Chemical Co., Inc.

Installation of epoxy lining in ten aboveground storage tanks, spill containment, bottom loading and an oil/water separator.

TC-3246
Star Oilco

Installation of epoxy lining in five steel underground storage tanks, sacrificial anode cathodic protection on tanks and piping, spill containment basins and line leak detectors.

TC-3248
Russell Oil Company, Inc.

Installation of three fiberglass underground storage tanks and piping, spill containment basins, tank monitor, the replacement of a pressure pump system with a suction system, and monitoring wells.

TC-3251
S. J. Stinebaugh

Installation of four STI-P3 underground storage tanks and fiberglass piping, tank monitor, spill containment basins,

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	line leak detectors, float vent valves, impact shear valves, and monitoring wells.
TC-3256 Marion L. Knox	Case 1370 Tractor.
TC-3257 Langmack Seed Co., Inc.	John Deere 4440 Tractor.
TC-3258 Roger F. Neuschwander	John Deere 8630 Tractor.
TC-3259 Cersovski Farms	Allis Chalmers 8070 Tractor.
TC-3260 Oak Creek Farms, Inc.	Big Bud Tractor.
TC-3261 Berger Brothers	John Deere 4850 Tractor.
TC-3263 Bi-Mor Stations, Inc.	Installation of four fiberglass underground storage tanks and piping, spill containment basins, tank monitor, line leak detectors, overflow alarm and sump.
TC-3264 Bi-Mor Stations, Inc.	Installation of three fiberglass underground storage tanks and piping, spill containment basins, tank monitor, overflow alarm, observation wells, float vent valves, a sump and Stage I vapor recovery equipment.
TC-3265 Hays-Moran Joint Venture	Installation of fiberglass lining in five steel underground storage tanks, spill containment basins, tank monitor, line leak detectors, fiberglass piping and monitoring wells.
TC-3266 Hays-Moran Joint Venture	Installation of one STI-P3 underground storage tank, fiberglass lining on three existing tanks, fiberglass piping, spill containment basins, emergency shutoff valves, tank monitor, float vent valves, monitoring wells and Stage I vapor recovery equipment.

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TC-3267 Hays-Moran Joint Venture	Installation of four fiberglass tanks and piping, spill containment basins, tank monitor, line leak detectors, monitoring wells, sump, breakaways and Stage I vapor recovery equipment.
TC-3268 Hays-Moran Joint Venture	Installation of three STI-P3 tanks, fiberglass pipe, spill containment basins, tank monitor, line leak detectors, overflow alarm, sump, monitoring well, float vent valves and breakaway devices.
TC-3269 Bi-Mor Stations, Inc.	Installation of three fiberglass tanks and piping, spill containment basins, tank monitor, line leak detector, overflow alarm, sump, monitoring wells, float vent valves and Stage I vapor recovery equipment.
TC-3270 Troutman Enterprises, Inc.	Installation of three spill containment basins and two monitoring wells.
TC-3271 E. D. Dirksen & Sons, Inc.	Installation of four STI-P3 tanks and fiberglass piping, spill containment basins, tank monitor and float vent valves.
TC-3272 Jackson Oil, Inc.	Installation of a tank monitor system, spill containment basins and line leak detectors.
TC-3273 Jackson Oil, Inc.	Installation of a tank monitor system and spill containment basins.
TC-3274 Johnson Oil Company, Inc.	Installation of epoxy lining in two bare steel underground storage tanks, cathodic protection around tanks and steel piping for four tank systems, spill containment basins, float vent valves and underground preparation of the site for a tank monitor system.
TC-3275 Johnson Oil Company, Inc.	Installation of epoxy lining in six underground storage tanks, cathodic protection on tanks and piping, spill containment basins, float vent valves and underground preparation of the site for a tank monitor system.

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TC-3276

Johnson Oil
of Manzanita, Inc.

Installation of one STI-P3 underground storage tank replacing three bare steel tanks, epoxy lining and cathodic protection in one existing steel tank, fiberglass piping, spill containment basins, monitoring wells, and turbine leak detectors on these and a third existing fiberglass tank.

TC-3277

Tansy Point Fuel Company

Installation of epoxy lining in two aboveground storage tanks.

TC-3278

Jackson Oil, Inc.

Installation of a tank monitor system, spill containment basins and line leak detectors.

TC-3279

Hood River Supply
Association

Installation of six fiberglass underground storage tanks and double wall fiberglass piping, spill containment basins, tank monitor, line leak detectors, monitoring well, overfill alarm, piping for Stage II vapor recovery.

TC-3280

Deschutes Country
Store, Inc.

Installation of sacrificial anode cathodic protection on four steel tanks and double wall fiberglass piping, spill containment basins, tank monitor, line leak detectors, float vent valves, sumps, shear valves and piping for Stage II vapor recovery.

TC-3285

L & D of Oregon, Inc.

Installation of two baffled STI-P3 double wall tanks and double wall fiberglass piping, spill containment basins, overfill vent valves, breakaway automatic shutoff devices, tank monitor, turbine leak detectors, monitoring wells and Stage I and Stage II vapor recovery.

DESCRIPTION OF REQUESTED ACTION:

Issue Tax Credit Certificates for Pollution Control Facilities.

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AUTHORITY/NEED FOR ACTION:

- Required by Statute: ORS 468.150-468.190 Attachment
 Enactment Date: _____
 Statutory Authority: _____ Attachment
 Pursuant to Rule: OAR 340 Division 16 Attachment
 Pursuant to Federal Law/Rule: _____ Attachment

 Other: Attachment

 Time Constraints: (explain)

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:

There may be testimony regarding the determination of the percent allocable to pollution control for applications TC-3261 and TC-3257.

PROGRAM CONSIDERATIONS:

None.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

None.

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DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends the Environmental Quality Commission approve certification for tax credit applications TC-2283, TC-2300, TC-2673, TC-2698, TC-2708, TC-2814, TC-2829, TC-2867, TC-2892, TC-2893, TC-2933, TC-3070, TC-3072, TC-3181, TC-3197, TC-3199, TC-3200, TC-3201, TC-3202, TC-3203, TC-3204, TC-3208, TC-3210, TC-3216, TC-3219, TC-3240, TC-3246, TC-3248, TC-3251, TC-3256, TC-3257, TC-3258, TC-3259, TC-3260, TC-3261, TC-3263, TC-3264, TC-3265, TC-3266, TC-3267, TC-3268, TC-3269, TC-3270, TC-3271, TC-3272, TC-3273, TC-3274, TC-3275, TC-3276, TC-3277, TC-3278, TC-3279, TC-3280, TC-3285.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Yes.

Note - Pollution Tax Credit Totals:

Proposed November 2, 1990 Totals

Air Quality	\$ 32,200
Hazardous/Solid Waste	0
Noise	0
Plastics	0
Underground Storage Tanks	388,406
Water Quality	0
	<u>\$ 420,606</u>

1990 Calendar Year Totals through September 1990.

Air Quality	\$3,531,870
Hazardous/Solid Waste	270,427
Noise	0
Plastics	166,101
Underground Storage Tanks	2,118,964
Water Quality	<u>1,853,210</u>
	<u>\$7,940,572</u>

Proposed December 14, 1990 Totals

Air Quality	\$ 571,393
Hazardous/Solid Waste	0
Noise	0
Plastics	0
Underground Storage Tanks	2,048,846
Water Quality	0
	<u>\$2,620,239</u>

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1990 Calendar Year Totals through November 1990.

Air Quality	\$3,564,070
Hazardous/Solid Waste	270,427
Noise	0
Plastics	166,101
Underground Storage Tanks	2,507,370
Water Quality	<u>1,853,210</u>
	\$8,361,178

INTENDED FOLLOWUP ACTIONS:

Notify applicants of Environmental Quality Commission actions.

Approved:

Section: Roberta Young

Division: Det. A. Dulla

Director: Jell Hansen

Report Prepared By: Roberta Young

Phone: 229-6408

Date Prepared: November 26, 1990

RY:y
MY100972
November 26, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Weyerhaeuser Company
Klamath Falls Operation
P.O. Box 9
Klamath Falls, OR 97601

The applicant owns and operates a medium density siding manufacturing facility in Klamath Falls, Oregon.

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

2. Description of Facility

The claimed facility is a Clarke's Sheet Metal 60-20 bag filter on the discharge of the fan pulling through cyclone #13.

Claimed Facility Cost: \$168,962.00
(Accountant's Certification was provided).

3. Procedural Requirements

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 filed August 7, 1989, less than 30 days before installation commenced on August 7, 1989. However, according to the process provided in OAR 340-16-015(1)(b), the application was reviewed by DEQ staff and the applicant was notified that the application was complete and that installation could commence.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Installation of the facility was substantially completed on October 7, 1989 and the application for final certification was found to be complete on June 12, 1990 within 2 years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to control a substantial quantity of air pollution. This control is accomplished by the elimination of air contaminants as defined in ORS 468.275.

The system handles hardboard core material and had been identified as marginally compliant with opacity limits. A post-installation inspection showed the system to be in compliance with opacity limits.

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.

There is no annual return on investment for this facility because there is no gross income from the facility.

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

Applicant did not identify possible alternatives. The Department considers installation of the bag filter to be the most appropriate control for the particular problem.

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

There is no savings from the facility. The cost of maintaining and operating the facility is \$3,000.00 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 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. Summation

- 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 a substantial quantity of air pollution and it accomplishes this purpose by the elimination of air contaminants as defined in ORS 468.275.
- 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 \$168,962.00 with 100 % allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2283.

John J. Ruscigno:a
PO\AH11103
(503) 229-6480
10/18/90

Application No. TC-2300

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a commercial fueling site at 3411 Market St. NE, Salem, OR, 97303, facility no.6438.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overfill prevention on five underground storage tanks in the form of automatic tank gauges with alarms.

Claimed facility cost (Documentation of cost was provided)	\$ 13,848
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on February 26, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on February 27, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel tanks with bare steel piping and no corrosion protection, overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Overflow alarm.
- 2) For leak detection - Automatic tank gauge.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$13,634. This represents a difference of \$214 from the applicant's claimed cost of \$13,848 due to a determination by the Department that the cost of five manhole covers, 5 caps and adaptors and overflow alarm were claimed at the list price rather than the actual discount price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 83	100%	\$ 83
Leak Detection:			
Automatic tank gauges	7,276	90 (1)	6,548
Labor & materials	<u>6,275</u>	<u>100</u>	<u>6,275</u>
Total	\$13,634	95%	\$12,906

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$13,634 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2300.

Mary Lou Perry:ew
(503) 229-5731
October 26, 1990

Application No. TC-2673

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Rainey's Corner Market
Michael & Bobbie Rainey
4865 Hwy. 234
White City, OR 97503

The applicant owns and operates a service station and market at 4865 Hwy. 234, White City, OR, facility no. 2358.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three fiberglass tanks and piping, spill containment basins, line leak detectors, monitoring wells, overflow vent valves and underground preparation for a tank monitor system to be installed at a later date.

Claimed facility cost \$ 85,124
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed in April, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed in operation in April, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three bare steel tanks and galvanized piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins and overflow vent valves.
- 3) For leak detection - Line leak detectors, monitoring wells and underground preparation for a tank monitor system to be installed at a later date.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$85,124) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
Fiberglass tanks	\$12,606	31%(1)	\$3,908
Spill & Overflow Prevention:			
Spill containment basins	852	100	852
Overflow vent valves	328	100	328
Leak Detection:			
Line leak detectors	573	100	573
Monitoring wells	321	100	321
Labor & materials (includes fiberglass piping and underground prep for tank monitor)	<u>70,444</u>	<u>100</u> (2)	<u>70,444</u>
Total	\$85,124	90%	\$76,426

(1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$12,606 and the bare steel system is \$8,640, the resulting portion of the eligible tank cost allocable to pollution control is 31%.

(2) The applicant reported that the high labor cost was due to solid rock that had to be blasted.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 90%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$85,124 with 90% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2673.

Barbara J. Anderson:ew
(503) 229-5870
October 25, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Pendleton Grain Growers, Inc.
P.O. Box 1248
Pendleton, OR 97801

The applicant owns and operates a retail service station, tire store and Cardlock facility at 1111 SW Dorion Avenue, Pendleton, OR, facility no. 6156.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the new installation of one 12,000 gallon fiberglass underground storage tank and piping, fiberglass piping replacement on three existing tank systems, spill containment basins, tank monitor and line leak detectors.

Claimed facility cost	\$ 31,623
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in February, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in February, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three cathodically protected underground storage tanks and galvanized piping with no corrosion protection on the piping and no spill and overfill prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - One new fiberglass tank and fiberglass piping for four tanks.
- 2) For spill and overfill prevention - Spill containment basins.
- 3) For leak detection - Tank monitor, line leak detectors and monitoring wells.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$31,623) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
Fiberglass tank (new)	\$ 7,838	36%(1)	\$ 2,822
Fiberglass pipe (new)	1,776	36 (1)	639
Fiberglass pipe (replacement)	5,328	100 (2)	5,328
Spill & Overflow Prevention:			
Spill containment basins	875	100	875
Leak Detection:			
Tank monitor	7,565	90 (3)	6,809
Line leak detectors	1,006	100	1,006
Labor & materials (excludes new tank & piping)	<u>7,235</u>	<u>100</u>	<u>7,235</u>
Total	\$31,623	78%	\$24,714

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$7,838 and the bare steel system is \$4,979, the resulting portion of the eligible tank cost allocable to pollution control is 36%. This percentage is also used to determine the portion of new piping cost allocable to pollution control.
- (2) The Department considers 100% of replacement fiberglass piping to be eligible because direct replacement of steel piping with fiberglass is considered to be the most practical method of achieving corrosion protection on piping.
- (3) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 78%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$31,623 with 78% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2698.

Barbara J. Anderson:ew
(503) 229-5870
November 1, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Star Oilco
232 NE Middlefield Rd.
Portland, OR 97211-1295

The applicant leases and operates a cardlock fueling facility at 1703 NW 16th, Portland, Oregon, facility no.3880.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy lining in two underground storage tanks, sacrificial anode cathodic protection around tanks and piping, spill containment basins and monitoring wells.

Claimed facility cost	\$34,275
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in December, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of two asphalt painted steel underground storage tanks and galvanized steel piping. with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to underground storage tank requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Epoxy tank lining and sacrificial anode cathodic protection around tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins.
- 3) For leak detection - Monitoring wells.

The applicant reported that tank tightness testing was performed and the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$34,275) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant considered the method chosen to be the only one feasible. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Epoxy tank lining	\$22,892	100%	\$22,892
Sacrificial anodes	6,511	100	6,511
Spill & Overfill Prevention:			
Spill containment basins	1,579	100	1,579
Leak Detection:			
Monitoring wells	765	100	765
Labor & materials	<u>2,528</u>	<u>100</u>	<u>2,528</u>
Total	\$34,275	100%	\$34,275

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- 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 \$34,275 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2708.

Barbara J. Anderson:ew
(503) 229-5870
October 2, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Weyerhaeuser Company
Klamath Falls Operation
P.O. Box 9
Klamath Falls, OR 97601

The applicant owns and operates a powerhouse for their wood products facility in Klamath Falls, Oregon.

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

2. Description of Facility

The claimed facility is a Dynatron 1100M opacity monitor with a hard chart read-out of continuous opacity monitoring on #5 boiler stack.

Claimed Facility Cost: \$27,463.00
(Accountant's Certification was provided).

3. Procedural Requirements

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 filed April 3, 1989 more than 30 days before installation commenced on May 22, 1989.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Installation of the facility was substantially completed on June 26, 1989 and the application for final certification was found to be complete on September 28, 1990 within 2 years of substantial completion of the facility.

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 control air pollution.

During the annual inspection of the site on September 7, 1988, opacity violations were documented which were caused by a wet fuel problem. The Department recommended the installation of a continuous opacity monitor to provide the boiler operator with a warning that opacity problems were developing and enable the operator to regulate fuel feed to improve the problem. The hard copy capability of the monitor enables the Department to review the records and monitor the duration and severity of boiler upset conditions.

Annual inspections in 1989 and 1990 showed boiler stack #5 to be in compliance with its permitted opacity limits.

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.

There is no percent return on investment from this facility because there is no gross annual income from the facility.

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

The applicant did not identify any alternative methods or equipment. The Department agrees that the installed opacity monitor was the most appropriate control for the problem.

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

There is no savings from the facility. The cost of maintaining and operating the facility is \$1,000.00 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 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. Summation

- 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 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 \$27,463.00 with 100 % allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2814.

John J. Ruscigno:a
PO\AH11104
(503) 229-6480
10/18/90

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Priestley Oil & Chemical Co., Inc.
2429 N. Borthwick
Portland, OR 97227

The applicant owns and operates a bulk plant distribution center at 2429 N. Borthwick, Portland, OR.

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

2. Description of Facility

The claimed pollution control facilities described in this application are the installation of an oil/water separator and spill containment for 18 aboveground tanks.

Claimed facility cost (Accountant's certification was provided)	\$74,815
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in August, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in August, 1990.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of 18 underground storage tanks, with no corrosion protection and no spill and overflow prevention or leak detection equipment. The underground storage tanks were replaced by 18 aboveground tanks during the project.

In accordance with federal law, the applicant installed a Spill containment basin under the 18 aboveground storage tanks.

The applicant also installed an oil/water separator.

The applicant reported that soil testing was performed at the time of tank removal and contaminated soil was removed.

Based on information currently available, the applicant is in compliance with federal law in that a Spill Prevention Control and Countermeasure Plan (SPCC) is on file at the facility.

The Department concludes that all of the costs claimed by the applicant (\$74,815) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable using standardized methodology pursuant to the latest interpretation of the Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Spill & Overfill Prevention:			
Spill containment basins	\$50,462	100%	\$50,462
Oil/Water separator	9,080	100	9,080
Engineering	<u>15,273</u>	<u>100</u>	<u>15,273</u>
Total	\$74,815	100%	\$74,815

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the sole purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- 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 \$74,815 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2829.

Barbara J. Anderson:ew
(503) 229-5870
September 21, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

James G. & Bernice D. Voelz
62088 Fruitdale Lane
La Grande, OR 97850

The applicant owns and operates a service station at 1701 Adams Avenue, La Grande, OR, facility no. 8760.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of two STI-P3 tanks and fiberglass piping, spill containment basins, tank monitor and float vent valves.

Claimed facility cost (Documentation of cost was provided)	\$19,968
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in November, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed in operation on August 1, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four asphalt coated steel underground storage tanks and bare steel piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - STI-P3 tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins and float vent valves.
- 3) For leak detection - Tank monitor system.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$22,768. This represents a difference of \$2,800 from the applicant's claimed cost of \$19,968 due to a determination by the Department that the eligible facility cost of the project should reflect the total cost of the STI-P3 tanks rather than only the difference in cost between bare steel and STI-P3 tanks as was claimed by the applicant.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant did not indicate if any alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
STI-P3 tanks	\$ 8,089	65%(1)	\$ 5,258
Fiberglass piping	1,462	100	1,462
Spill & Overflow Prevention:			
Spill containment basins	391	100	391
Leak Detection:			
Tank monitor	4,584	90 (2)	4,126
Labor & materials (includes vent valves)	<u>8,242</u>	<u>100</u>	<u>8,242</u>
Total	\$22,768	86%	\$19,479

(1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$8,089 and the bare steel system is \$2,800, the resulting portion of the eligible tank cost allocable to pollution control is 65%.

(2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 86%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$22,768 with 86% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2867.

Barbara J. Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Western Stations Co., Inc.
1466 NW Front Avenue
Portland, OR 97228-5969

The applicant owns and operates a retail gasoline outlet at 1320 N Harvard, Roseburg, OR, facility no.6259.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of one double wall, (fiberglass outer wall, steel inner wall) underground storage tank and fiberglass piping, impress current cathodic protection on three existing steel tanks, tank monitor, spill containment basins, overflow alarm, automatic shutoff breakaway devices, monitoring wells, Stage I vapor recovery equipment and piping for Stage II.

Claimed facility cost	\$ 56,850
(Accountant's certification was provided)	

Percent allocable to pollution control	93%
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3. Procedural Requirements

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 installation of the facility was substantially completed on August 31, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on August 10, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - One double wall tank and impressed current cathodic protection on three existing steel tanks.
- 2) For spill and overflow prevention - Spill containment basins, overflow alarm and automatic shutoff breakaway devices.
- 3) For leak detection - Tank monitor and monitoring wells.

The applicant also installed Stage I vapor recovery equipment and piping for Stage II.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$56,850) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no significant alternatives were available. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The applicant estimated that 93% of the claimed facility cost of \$56,850 is allocable to pollution control. The applicant arrived at this estimate by claiming the difference between corrosion protected and bare steel tanks and 90% of the tank monitor equipment and setup.

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Double wall tank	\$8,350	58%(1)	\$4,843
Cathodic protection	3,250	100	3,250
Spill & Overfill Prevention:			
Spill containment basins	800	100	800
Overfill alarm	180	100	180
Breakaway devices	1,569	100	1,569
Leak Detection:			
Tank monitor	5,880	90 (2)	5,292
Monitoring wells	200	100	200
Stage I Vapor recovery	548	100	548
Piping for Stage II	5,100	100	5,100
Labor & materials including piping	<u>30,973</u>	<u>100</u>	<u>30,973</u>
Total	\$56,850	93%	\$52,755

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$8,350 and the bare steel system is \$3,504, the resulting portion of the eligible tank cost allocable to pollution control is 58%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 93%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$56,850 with 93% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No.TC-2892.

Barbara J. Anderson:ew
(503) 229-5870
October 16, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Columbia Helicopters, Inc.
PO Box 3500
Portland, OR 97208

The applicant owns and operates a helicopter service and leasing operation at 14452 Arndt Road NE, Aurora, OR, facility no. 3450.

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

2. Description of Claimed Facility

The claimed pollution control facility described in this application is the installation of fiberglass interior lining in two 70,000 gallon underground storage tanks, cathodic protection anodes, fiberglass piping, spill containment basins, float vent valves and tank monitor system.

Claimed facility cost \$165,899
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed in August, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in January, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of two bare steel 70,000 gallon tanks and piping with no corrosion protection and no spill and overfill prevention or leak detection equipment.

To respond to underground storage tank requirements effective 12-22-88, the applicant installed:

- (1) For corrosion protection - Fiberglass tank lining, cathodic protection and fiberglass piping.
- (2) For spill and overfill prevention - Spill containment basins and float vent valves.
- (3) For leak detection - Tank monitor system.

The applicant reported that soil testing was performed prior to the project and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$157,399. This represents a difference of \$8,500 from the applicant's claimed cost of \$165,899 due to a determination by the Department that the cost of collecting and testing soil samples to determine if contamination existed in the area of two jet fuel tanks prior to the project is not eligible pursuant to the definition of a pollution control facility in ORS 468.155 and OAR 340-16-025(1), because it is not "land, structure, building, installation, excavation, machinery, equipment or device...used, erected, constructed or installed" to achieve pollution control.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant considered converting to an aboveground tank system. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tank lining	\$ 55,661	100%	\$ 55,661
Fiberglass piping	3,834	100	3,834
Cathodic protection	13,104	100	13,104
Spill & Overfill Prevention:			
Spill containment basin	3,895	100	3,895
Float vent valves	380	100	380
Leak Detection:			
Tank monitor	4,381	90 (1)	3,943
Labor & materials	<u>76,144</u>	<u>100</u>	<u>76,144</u>
Total	\$157,399	100%	\$156,961

(1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, such as inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- 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 \$157,399 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2893.

Barbara J. Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Ellingson Lumber Company
3100 Broadway
Baker City, OR 97814

The applicant owns and operates a sawmill and planing facility in Baker City, Oregon.

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

2. Description of Facility

The claimed facility is a Sweco Vibro Energy Separator, a MAC Style III Filter receiver, a rotary valve, and conveying equipment required to transfer cinders and ash from the hogged fuel boiler through the separating equipment and then to either a drop box or cinder burner.

Claimed Facility Cost: \$44,541.00
(Accountant's Certification was provided).

3. Procedural Requirements

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 filed May 17, 1989 more than 30 days before construction commenced on July 1, 1990.
- b. The request for preliminary certification was approved by default, per OAR 340-16-015 (2)(b) which was in effect at the time, before application for final certification was made.
- c. Construction of the facility was substantially completed on October 31, 1989 and the application for final certification was found to be complete on October 15, 1990 within 2 years of substantial completion of the facility.

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.

The Department issued a Notice of Violation, dated September 21, 1988, to the applicant for visible emissions from the ash destructor exceeding the permitted opacity limit of 20%. The opacity problems resulted from boiler fly ash passing through the ash destructor and out the stack. The solution was to separate the ash from the burnable char prior to the ash destructor and deposit the ash in a landfill.

Annual inspection on June 20, 1990 showed the ash destructor to be in compliance with the permitted 20% opacity limit.

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. The material collected by the facility is disposed of in a landfill.

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

There is no return on investment from the facility because there is no gross annual income.

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

The applicant did not present any alternatives. The Department considers the chosen method of pollution control appropriate for the problem.

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

There is no savings from the facility. The cost of maintaining and operating the facility averages \$20,686 annually for the first five years.

- 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. Summation

- 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 reduce air pollution.
- c. The facility complies with 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 \$44,541 with 100 % allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2933.

John J. Ruscigno:a
PO\AH11089
(503) 229-6480
10/19/90

Application No. TC-3070

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Metrofueling, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a cardlock at 970 13th St. SE, Salem, OR, facility no.3618.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection devices on three underground storage tanks in the form of automatic tank gauges with overflow alarms.

Claimed facility cost (Documentation of cost was provided)	\$ 10,429
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on January 30, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on February 1, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three bare steel tanks and bare steel piping with no corrosion protection, overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Overflow alarm.
- 2) For leak detection - Automatic tank gauge.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$10,372. This represents a difference of \$57 from the applicant's claimed cost of \$10,429 due to a determination by the Department that the cost of three manhole covers were claimed at the list price rather than the actual discount price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 110	100%	110
Leak Detection:			
Automatic tank gauges	4,585	90 (1)	4,127
Labor & materials	<u>5,677</u>	<u>100</u>	<u>5,677</u>
Total	\$10,372	96%	\$9,914

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 96%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$10,372 with 96% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3070.

Mary Lou Perry:ew
(503) 229-5731
October 25, 1990

Application No. TC-3072

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Metrofueling, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant leases and operates a card lock at 11426 NE Sandy, Portland, OR, 97220, facility no.6621.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of a tank monitoring system and overflow alarm.

Claimed facility cost (Documentation of cost was provided)	\$ 13,277
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on August 30, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on September 1, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three lined steel tanks with fiberglass piping and no overfill prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overfill prevention - Overfill alarm.
- 2) For leak detection - Tank monitoring system.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$13,277) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 110	100%	110
Leak Detection:			
Tank monitoring system	4,061	90 (1)	3,655
Labor & materials	<u>9,106</u>	<u>100</u>	<u>9,106</u>
Total	\$13,277	97%	\$12,871

- (1) The applicant's cost for a tank monitoring system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 97%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$13,277 with 97% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3072.

Mary Lou Perry:ew
(503) 229-5731
October 25, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

G & P Farms
Gary & Patricia Keen
34656 Enos Drive
Brownsville, Oregon 97327

The applicant owns and operates a grass seed farm operation in Brownsville, 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 used 1973, 150 horsepower International 1566 wheel tractor, located at 34656 Enos Drive, Brownsville, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$12,450
(The applicant provided copies of purchase documents.)

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

Before purchase of the tractor and complementary implements the applicant open field burned as much of his 1300 acres as the regulatory program allowed him to each year.

With the equipment, the applicant is able to bale off or flail chop, plow, harrow, roll, seed and chemically spray approximately 100 acres of perennial and 200 acres of annual grass seed fields per year.

4. Procedural Requirements

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 February 12, 1990, and the application for final certification was found to be complete on November 7, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; 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 does not recover or convert waste products into a salable or usable commodity. The equipment enables the applicant to bale, flail chop, plow, harrow, roll and seed his grass seed fields in lieu of open field burning.

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 gross annual income.

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 \$8,400 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.

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:

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Rake (windrow)	100 (perennial)	7	15
Baler	100 (perennial)	4	25
Flail chopper	100 (perennial)	6	34
	<u>100</u> (annual)		
	200		
Plow	200 (annual)	6	34
Harrow	600 (annual x 3)	7	86
Roller	600 (annual x 3)	7	<u>86</u>
Total annual operating hours			280

The total annual operating hours of 280 divided by the average annual operating hours of 450 produces a percent allocable of 62%.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 62%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.

- d. The portion of the equipment that is properly allocable to pollution control is 62%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$12,450, with 62% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3181.

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

JB:bmTC3181
November 21, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Metrofueling, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a cardlock facility at 16650 SW 72nd Ave., Tigard, OR, facility no. 3605.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of an automatic tank gauge system, overflow alarm and oil/water separator.

Claimed facility cost	\$ 12,470
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on December 31, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in January, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Overflow alarm.
- 2) For leak detection - Automatic tank gauge system.

The applicant also installed an oil/water separator.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$12,394. This represents a difference of \$76 from the applicant's claimed cost of \$12,470 due to a determination by the Department that the cost of the overflow alarm and part of the automatic tank gauge system were claimed at the list price rather than the actual discount price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 88	100%	\$ 88
Leak Detection:			
Automatic tank gauges	4,262	90 (1)	3,836
Oil/water separator	3,170	100	3,170
Labor & materials	<u>4,874</u>	<u>100</u>	<u>4,874</u>
Total	\$12,394	97%	\$11,968

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 97%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$12,394 with 97% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3197.

Barbara Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Metrofueling, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant leases and operates a cardlock facility at 539 SE 122nd, Portland, OR 97233, facility no. 6075. (DEQ facility address is 605 SE 122nd. Two companies share one large lot - each has it's own mailing address.)

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overfill prevention on three underground storage tanks in the form of automatic tank gauges with overfill alarm.

Claimed facility cost (Documentation of cost was provided)	\$ 10,058
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on November 30, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation December 1, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three bare steel tanks and piping with no corrosion protection and overflow prevention or leak detection equipment. (Two other tanks at this facility are owned by Thrifty Auto.)

To respond to underground storage tank requirements established 12-22-88, the applicant installed:

- 1) For spill and overflow prevention - Overflow alarm
- 2) For leak detection - Automatic tank gauges

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$9,976. This represents a difference of \$82 from the applicant's claimed cost of \$10,058 due to a determination by the Department that the cost of the three caps and adaptors and the alarm were claimed at the list price rather than the actual discount price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 83	100%	\$ 83
Leak Detection:			
Automatic Tank gauges	4,077	90 (1)	3,669
Labor & materials	<u>5,816</u>	<u>100</u>	<u>5,816</u>
Total	\$ 9,976	96%	\$9,568

- (1) The applicant's cost for an automatic tank gauge is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, such as inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 96%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$9,976 with 96% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3199.

Mary Lou Perry:ew
(503) 229-5731
November 5, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a retail fueling facility at 2483 Mission St SE, Salem, OR 97302, facility no. 6443.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overfill prevention on four underground storage tanks in the form of automatic tank gauges with an overfill alarm.

Claimed facility cost	\$ 9,530
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on March 4, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation March 5, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four bare steel tanks and piping with no corrosion protection and overflow prevention or leak detection equipment.

To respond to underground storage tank requirements established 12-22-88, the applicant installed:

- 1) For spill and overflow prevention - Overflow alarm
- 2) For leak detection - Automatic tank gauges

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$9,530) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Spill & Overfill Prevention:			
Overfill alarm	\$ 110	100%	\$ 110
Leak Detection:			
Automatic Tank gauges	4,488	90 (1)	4,039
Labor & materials	<u>4,932</u>	<u>100</u>	<u>4,932</u>
Total	\$ 9,530	95%	\$9,081

- (1) The applicant's cost for an automatic tank gauge is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, such as inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$9,530 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3200.

Mary Lou Perry:ew
(503) 229-5731
November 5, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a retail fueling facility at 3222 Liberty Rd. S., Salem, OR 97302, facility no. 6439.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overflow prevention on three underground storage tanks in the form of automatic tank gauges with an overflow alarm.

Claimed facility cost	\$ 8,319
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on March 5, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation March 6, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

To respond to underground storage tank requirements established 12-22-88, the applicant installed:

- 1) For spill and overfill prevention - Overfill alarm
- 2) For leak detection - Automatic tank gauges

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$8,319) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 110	100%	\$ 110
Leak Detection:			
Automatic Tank gauges	3,761	90 (1)	3,385
Labor & materials	<u>4,448</u>	<u>100</u>	<u>4,448</u>
Total	\$ 8,319	95%	\$7,943

- (1) The applicant's cost for an automatic tank gauge is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$8,319 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3201.

Mary Lou Perry:ew
(503) 229-5731
November 5, 1990

Application No. TC-3202

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant leases and operates a retail service station at 4292 Liberty Rd S., Salem, OR, facility no. 8491.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of an automatic tank gauge system and an overfill alarm.

Claimed facility cost (Documentation of cost was provided)	\$ 10,407
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on March 5, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on March 6, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four cathodically protected steel tanks and piping with line leak detectors but no spill and overfill prevention.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overfill prevention - Overfill alarm.
- 2) For leak detection - Automatic tank gauge system.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$10,380. This represents a difference of \$27 from the applicant's claimed cost of \$10,407 due to a determination by the Department that the cost of the overfill alarm was claimed at the list price rather than the actual discount price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 83	100%	\$ 83
Leak Detection:			
Automatic tank gauges	5,539	90 (1)	4,985
Labor & materials	<u>4,758</u>	<u>100</u>	<u>4,758</u>
Total	\$10,380	95%	\$ 9,826

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$10,380 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3202.

Barbara Anderson:ew
(503) 229-5870
November 6, 1990

Application No. TC-3203

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a retail fueling facility at 789 N. 3rd Avenue, Stayton, OR, facility no. 3609.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overflow prevention on five underground storage tanks in the form of automatic tank gauges with alarm.

Claimed facility cost (Documentation of cost was provided)	\$ 11,623
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on February 28, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on March 1, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel tanks and piping with no corrosion protection, overfill prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overfill prevention - Overfill alarm.
- 2) For leak detection - Automatic tank gauges.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$11,623) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 110	100%	\$ 110
Leak Detection:			
Automatic tank gauges	5,350	90 (1)	4,815
Labor & materials	<u>6,163</u>	<u>100</u>	<u>6,163</u>
Total	\$11,623	95%	\$11,088

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$11,623 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3203.

Mary Lou Perry:ew
(503) 229-5731
November 6, 1990

Application No. TC-3204

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a retail fueling site at 382 N. Santiam Hwy, Mill City, OR, 97360, facility no.3608.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overflow prevention on five underground storage tanks in the form of automatic tank gauges with alarms.

Claimed facility cost	\$ 11,531
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on February 28, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on March 1, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel tanks with bare steel piping and no corrosion protection, overfill prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overfill prevention - Overfill alarm.
- 2) For leak detection - Automatic tank gauge.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$11,504. This represents a difference of \$27 from the applicant's claimed cost of \$11,531 due to a determination by the Department that the cost of the overfill alarm was claimed at the list price rather than the actual discount price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 83	100%	\$ 83
Leak Detection:			
Automatic tank gauges	5,285	90 (1)	4,757
Labor & materials	<u>6,136</u>	<u>100</u>	<u>6,136</u>
Total	\$11,504	95%	\$10,976

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$11,504 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3204.

Mary Lou Perry:ew
(503) 229-5731
October 26, 1990

Application No. TC-3208

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a card lock at 621 Water St.,
Silverton, OR, facility no.3612.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this
application are the installation of leak detection on four
underground storage tanks in the form of automatic tank
gauges with alarms.

Claimed facility cost	\$ 10,290
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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
installation of the facility was substantially completed on
March 31, 1990 and the application for certification was
found to be complete within two years of substantial
completion of the facility. The facility was placed into
operation on April 1, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four bare steel tanks and bare steel piping with no corrosion protection, overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Overflow alarm.
- 2) For leak detection - Automatic tank gauge.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$10,141. This represents a difference of \$149 from the applicant's claimed cost of \$10,290 due to a determination by the Department that the cost of four probe caps and four manhole covers were claimed at the list price rather than the actual price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 110	100%	110
Leak Detection:			
Automatic tank gauges	4,505	90 (1)	4,055
Labor & materials	<u>5,526</u>	<u>100</u>	<u>5,526</u>
Total	\$10,141	96%	\$9,691

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 96%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$10,141 with 96% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3208.

Mary Lou Perry:ew
(503) 229-5731
October 25, 1990

Application No. TC-3210

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a retail service station and cardlock at 585 Wallace Rd NW, Salem, OR, facility no. 6440.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overflow prevention in the form of automatic tank gauges with alarm.

Claimed facility cost (Documentation of cost was provided)	\$ 11,566
Percent allocable to pollution control	100%

3. Procedural Requirements

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 installation of the facility was substantially completed on March 5, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on March 6, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four bare steel tanks and piping with no corrosion protection, overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Overflow alarm.
- 2) For leak detection - Automatic tank gauges.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$11,538. This represents a difference of \$28 from the applicant's claimed cost of \$11,566 due to a determination by the Department that the cost of the overflow alarm was claimed at the list price rather than the actual discount price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 82	100%	\$ 82
Leak Detection:			
Automatic tank gauges	5,048	90 (1)	4,543
Labor & materials	<u>6,408</u>	<u>100</u>	<u>6,408</u>
Total	\$11,538	96%	\$11,033

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 96%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$11,538 with 96% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3210.

Mary Lou Perry:ew
(503) 229-5731
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

G & R Seeds
33660 Ridge Drive
Tangent, OR 97389

The applicant owns a seed growing and cleaning business in Tangent, Or.
Application was made for tax credit for an air pollution control facility.

2. Description of Facility

The claimed facility is an air filtration system (baghouse) which is designed to keep dust from the seed cleaning warehouse from exhausting into the air. The baghouse consists of three clusters of cloth dust bags, sixteen per cluster, each bag 12" x 12'.

Claimed Facility Cost: \$11,764.00
(Accountant's Certification was provided).

3. Procedural Requirements

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:

- c. Installation of the facility was completed in May 1990 and the application for final certification was found to be complete on July 31, 1990, within 2 years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to reduce air pollution.

This reduction is accomplished by the redesign to eliminate air contaminants as defined in ORS 468.275.

The applicant replaced an existing large diameter, low efficiency cyclone with a new baghouse. There was no salvage value to the cyclone. The baghouse should be much more effective in capturing potential air contaminants than was the cyclone.

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 cost of operating the facility is greater than the value of the materials collected.

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

There is no return on investment because there is no net income from the materials collected.

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

The applicant did not present any alternatives. The Department considers the chosen method of pollution control appropriate for the problem.

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

There is no savings from the facility. The cost of maintaining and operating the facility is estimated at \$500.00 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 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 this factor or these factors is 100%.

5. Summation

The applicant replaced an existing low efficiency cyclone with a baghouse to control dust from their seed cleaning operation. The controls were not required by the Department. There was no salvage value to the cyclone or value to the dust collected. The cost to operate the baghouse is estimated at \$500 annually.

- 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 reduce air pollution, and accomplishes this purpose by the redesign to eliminate air pollution as defined in ORS 468.700.
- 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 \$11,764.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T3216.

Mary Heath:
(503) 229-5509
Nov. 7, 1990

Application No. TC-3219

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
P.O. Box 2099
Salem, OR 97308

The applicant owns and operates a cardlock at 35310 Hwy. 58, Pleasant Hill, OR, 97455, facility no.6437.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection on four underground storage tanks in the form of automatic tank gauges with alarms.

Claimed facility cost	\$ 11,089
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on March 31, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on April 1, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four bare steel tanks with bare steel piping and no corrosion protection, overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Overflow alarm.
- 2) For leak detection - Automatic tank gauge.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$10,998. This represents a difference of \$91 from the applicant's claimed cost of \$11,089 due to a determination by the Department that the cost of four manhole covers and overflow alarm were claimed at the list price rather than the actual discount price paid to the vendor.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill alarm	\$ 83	100%	\$ 83
Leak Detection:			
Automatic tank gauges	5,047	90 (1)	4,542
Labor & materials	<u>5,868</u>	<u>100</u>	<u>5,868</u>
Total	\$10,998	95%	\$10,493

- (1) The applicant's cost for an automatic tank gauge system is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$10,998 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3219.

Mary Lou Perry:ew
(503) 229-5731
October 26, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Priestley Oil & Chemical Co., Inc.
2429 N. Borthwick
Portland, OR 97227

The applicant owns and operates a bulk plant distribution center at 601 Baseline, Cornelius, OR.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy lining in ten aboveground storage tanks, spill containment, bottom loading and an oil/water separator.

Claimed facility cost	\$108,688
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in June, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in June, 1990.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of ten underground storage tanks, with no corrosion protection and no spill and overflow prevention or leak detection equipment. The underground storage tanks were replaced by aboveground tanks during the project.

In accordance with federal law, the applicant installed a spill containment basin under the 10 aboveground storage tanks.

The applicant also installed epoxy tank lining, an oil/water separator and bottom loading equipment.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with federal law in that a Spill Prevention Control and Countermeasure Plan (SPCC) is on file at the facility.

The Department concludes that all of the costs claimed by the applicant (\$108,688) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Epoxy lining	\$27,869	100%	\$27,869
Spill & Overfill Prevention:			
Spill containment basin	35,648	100	35,648
Bottom loading (installed)	18,095	0 (1)	0
Oil/Water separator	7,464	100	7,464
Engineering	3,663	100	3,663
Excavation	<u>15,949</u>	<u>100</u>	<u>15,949</u>
Total	\$108,688	83%	\$90,593

- (1) The Department determined the percent allocable on the cost of a bottom loading system to be the percentage difference in cost between a non-pollution control top loading system and a bottom loading pollution control system. The applicant reported no difference in cost to install the pollution control bottom loading system. Therefore, the percent allocable is 0%.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the sole purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 83%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$108,688 with 83% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3240.

Barbara J. Anderson:ew
(503) 229-5870
October 2, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Star Oilco
232 NE Middlefield Rd.
Portland, OR 97211-1295

The applicant leases and operates a cardlock fueling facility at 4505 SE 17th, Portland, Oregon, facility no.2491.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy lining in five steel underground storage tanks, sacrificial anode cathodic protection on tanks and piping, spill containment basins and line leak detectors.

Claimed facility cost \$ 61,366
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed in July, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five asphalt painted steel underground storage tanks and galvanized steel piping, with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to underground storage tank requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - epoxy tank lining and sacrificial anode cathodic protection around tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins.
- 3) For leak detection - Line leak detectors.

The applicant reported that tank tightness testing was performed shortly before the project and the soil was inspected during construction and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$61,366) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant considered replacement of the tanks as an alternative to tank lining. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Epoxy tank lining	\$30,450	100%	\$30,450
Sacrificial anodes	8,417	100	8,417
Spill & Overfill Prevention:			
Spill containment basins	4,045	100	4,045
Leak Detection:			
Line leak detectors	5,735	100	5,735
Labor & materials including	<u>12,719</u>	<u>100</u>	<u>12,719</u>
Total	\$61,366	100%	\$61,366

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- 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 \$61,366 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3246.

Barbara J. Anderson:ew
(503) 229-5870
October 2, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Russell Oil Company, Inc.
101 SW Front St.
Boardman, OR 97818

The applicant owns and operates a convenience store and gas station at 401 Locust Street, Arlington, OR, facility no. 1717.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three fiberglass underground storage tanks and piping, spill containment basins, tank monitor, the replacement of a pressure pump system with a suction system, and monitoring wells.

Claimed facility cost	\$50,283
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on June 8, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on June 8, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three bare steel underground storage tanks and piping with no corrosion protection and no spill and overfill prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overfill prevention - Spill containment basins.
- 3) For leak detection - Tank monitor system and monitoring wells.

The applicant also replaced a pressure pump system with a suction system.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$50,283) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant considered closing the facility as an alternative to replacing the tanks. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tanks	\$12,089	40%(1)	\$4,836
Fiberglass piping	6,601	100	6,601
Spill & Overflow Prevention:			
Spill containment basins	650	100	650
Leak Detection:			
Tank monitor	5,140	90 (2)	4,626
Suction pump system	8,554	50 (3)	4,277
Labor and materials	<u>17,249</u>	<u>100</u>	<u>17,249</u>
Total	\$50,283	76%	\$38,239

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$12,089 and the bare steel system is \$7,300, the resulting portion of the eligible tank cost allocable to pollution control is 40%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) The cost of the suction pump system that replaced the pressure system is reduced to 50% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since, according to the applicant, this is the percentage of useful life that remained in the pumps that were replaced.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 76%.

6. , Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$50,283 with 76% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3248.

Barbara J. Anderson:ew
(503) 229-5870
October 23, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

S. J. Stinebaugh
1390 NW Highland
Grants Pass, OR 97526

The applicant owns and operates a full service gas station at 704 NW 6th Street, Grants Pass, OR, facility no.754.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of four STI-P3 underground storage tanks and fiberglass piping, tank monitor, spill containment basins, line leak detectors, float vent valves, impact shear valves, and monitoring wells.

Claimed facility cost \$ 48,771
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed on November 13, 1988 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed in operation on November 13, 1988.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - STI-P3 tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins, float vent valves and impact shear valves.
- 3) For leak detection - Tank monitor, line leak detectors and monitoring wells.

The applicant reported that soil testing was performed at the time of tank removal and some contamination was found, which was reported to DEQ and removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$48,771) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant considered the method chosen to be the most reliable. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
STI-P3 tanks	\$14,589	24%(1)	\$3,501
Spill & Overflow Prevention:			
Spill containment basins	752	100	752
Float vent valves	84	100	84
Impact shear valves	295	100	295
Leak Detection:			
Tank monitor	6,000	90 (2)	5,400
Line leak detectors	764	100	764
Labor & materials (includes fiberglass piping & monitoring wells.)	<u>26,287</u>	<u>100</u>	<u>26,287</u>
Total	\$48,771	76%	\$37,083

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$14,589 and the bare steel system is \$11,040, the resulting portion of the eligible tank cost allocable to pollution control is 24%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 76%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$48,771 with 76% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3251.

Barbara J. Anderson:ew
(503) 229-5870
October 25, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Marion L. Knox
35136 Highway 34
Lebanon, Oregon 97355

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 35136 Highway 34, Lebanon, Oregon. The equipment is owned by the applicant.

Case 1370 Tractor	\$10,000
White 548 Plow	1,500

Claimed equipment cost: \$11,500
(Accountant's Certification was provided.)

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

The applicant stated that during the 1970s and through the mid-1980s he open field burned all of his 580 acres of grass seed fields on a rotational basis at approximately 50% of the acreage annually.

With the newly acquired tractor, plow, harrow and flail chopper and previously owned cultivator he now treats approximately 390 acres of annual ryegrass after harvest by flail chopping the residue, plowing the straw under, harrowing and reseeding the fields and spraying for weed control. On a rotational basis he will flail chop, allow the volunteers to sprout and apply fertilizer. The applicant also farms 190 acres of perennials. After harvest the fescue and orchardgrass are flail chopped, fertilized and sprayed for weed control while perennial ryegrass residue is baled, the stubble is flail chopped and the fields are treated chemically for weeds. The applicant tries to sell the baled straw but usually gives it away, or as a last resort burns it in stacks.

4. Procedural Requirements

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 August 1, 1989, and the application for final certification was found to be complete on November 5, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; 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 does not recover or convert waste products into a salable or usable commodity. The material decomposes on the surface after it is flail chopped on perennial fields. The straw is flail chopped and plowed under in annual fields.

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 gross annual income.

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 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.

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:

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Flow	150 (annual) <u>50</u> (perennial) 200	6	34
Harrow	600 (annual x 4) <u>200</u> (perennial x 4) 800	7	115
Flail Chopper	350 (annual) 100 (annual x 2) <u>300</u> (perennial x 2) 750	5	150
Cultivator	250 (annual)	6	<u>42</u>
Total annual operating hours			341

The total annual operating hours of 341 divided by the average annual operating hours of 450 produces a percent allocable of 76% or \$7,600. The tractors percent allocable (\$7,600) plus the plows percent allocable (\$1,500) totals \$9,100 and divided by the claimed cost of \$11,500 produces a percent allocable for this application of 80%.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 80%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the sole purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 80%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$11,500, with 80% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3256.

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

JB:bmTC3256
November 7, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Langmack Seed Co., Inc.
Charles Langmack
35944 Gore Drive
Lebanon, Oregon 97355

The applicant owns and operates a grass seed farm operation in Lebanon, 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 used John Deere 4440 tractor (130 HP), located at 35944 Gore Drive, Lebanon, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$26,500
(Accountant's Certification was provided.)

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

Before the applicant purchased the tractor and the flail chopper (previously certified) he stated that he annually burned most of his 1,130 acres of grass seed fields.

Since the purchase of the tractor and flail chopper the applicant has flail chopped, plowed, and harrowed most of his 630 acres of annual ryegrass while annually flail chopping approximately 300 acres of perennial fields.

4. Procedural Requirements

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 July 27, 1989, and the application for final certification was found to be complete on November 5, 1990, within two years of substantial purchase of the equipment. .

5. Evaluation of Application

- a. The equipment is eligible because the sole purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-012; 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 does not recover or convert waste products into a salable or usable commodity. The tractor provides power to a flail chopper enabling the applicant to flail chop and plow under all his annual fields and some of his perennial fields.

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 gross annual income.

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 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.

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:

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
flail chopper	600 (annual)		
	600 (perennial x 2)		
	1200	5	240
Total annual operating hours			240

The total annual operating hours of 240 divided by the average annual operating hours of 450 produces a percent allocable of 54%.

The applicant states that he bought and uses the tractor solely for pulling and powering the chopper and clearly feels that it meets the sole purpose requirement and should be certified at 100% of the actual cost. Applicant states that the tractor is too small to be used for other operations and bought "used" to specifically make the purchase and use of the chopper affordable. As tilling season coincides with use of the chopper and applicants other tractors are engaged in tilling, applicant claims that the tractor is an integral part of the "pollution control facility" and had to be purchased in combination with the chopper.

After examining the growers farm operation, the Department of Agriculture concurs with the applicant's claim.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 54%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the sole purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.

- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 54%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$26,500, with 54% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3257.

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

JB:bmTC3257
November 7, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Roger F. Neuschwander
31983 Harris Drive
Harrisburg, Oregon 97446

The applicant owns and operates a grass seed farm operation in Harrisburg, 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 260 horsepower, John Deer 8630 4x4 tractor, located at 31983 Harris Drive, Harrisburg, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$18,300
(Accountant's Certification was provided.)

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

Applicant states that before purchase of the tractor and associated implements 775 acres of perennial (575) and annual (200) grass seed fields were treated almost entirely by open field burning on a rotational basis of 75% of the acreage each year.

Purchase of the equipment has enabled the applicant to remove approximately 200 acres from his annual field burning activities. He flail chops, plows, harrows, rolls and reseeds 50 acres of annuals each year while 150 acres of perennial fields are baled or flail chopped and occasionally plowed or propaned. The round bales are given away or stack burned.

4. Procedural Requirements

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 March 13, 1990, and the application for final certification was found to be complete on November 8, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; 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 does not recover or convert waste products into a salable or usable commodity. On annual fields the residue is flail chopped and plowed under while perennial grass residue is baled off to be given away or stack burned or is flail chopped and left to decompose on the surface.

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 gross annual income.

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 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.

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:

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Plow	50 (annual) <u>50</u> (perennial) 100	8	13
Harrow	200 (annual x 4) <u>200</u> (perennial x 4) 400	7	58
Cultipactor	200 (annual x 4) <u>200</u> (perennial x 4) 400	7	58
Off-set disk	60 (perennial)	8	<u>5</u>
Total annual operating hours			134

The total annual operating hours of 134 divided by the average annual operating hours of 450 produces a percent allocable of 30%.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 30%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 30%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$18,300, with 30% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3258.

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

JB:bmTC3258
November 15, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Cersovski Farm
Joseph M. Cersovski; Donald E. Cersovski
31277 Diamond Hill Drive
Harrisburg, Oregon 97446

The applicant owns and operates a grass seed farm operation in Harrisburg, 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 170 horsepower Allis-Chalmers 8070 tractor and a 100 horsepower Ford 276 tractor, located at 31277 Diamond Hill Drive, Harrisburg, Oregon. The equipment is owned by the applicant.

Allis-Chalmers 8070 tractor \$26,258
Ford Versatile 276 Bidirect
tractor with front loader 49,255

Claimed equipment cost: \$75,513
(Accountant's Certification was provided.)

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

Before purchase of the equipment used as an alternative to open field burning, applicant states that perennial (650 acres) and annual (550 acres) grass seed fields were almost entirely treated by open field burning each year.

Since purchase of the tractors, applicant claims that annual fields are treated by flail chopping, plowing, harrowing and cultimulching, annually blading new ditches, semi-annually land planing and then re-seeding.

Perennial fields are baled off either after the initial cutting or after an additional re-clipping. Bales are removed from the fields by stack wagon. Perennial fields are then vacuumed by stack pak or dyna-drive tilled. Applicant claims an increased use of chemical applications for weed and disease control.

Applicant states that open field burning has been reduced 89% on his farm resulting from implementation of the above-stated alternatives.

4. Procedural Requirements

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 31, 1989, and the application for final certification was found to be complete on November 13, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; 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) from perennial fields into a usable commodity by providing power to a square baler enabling the applicant to remove the straw for sale as a feed supplement or for stack burning.

AND

The equipment does not recover or convert waste products from annual fields into a salable or usable commodity. The residue is flail chopped and plowed into the soil.

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

There is no annual percent return on the investment due to the negative average annual cash flow.

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 \$22,678 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.

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:

Allis-Chalmers 870

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Flail Chopper	200 (annual)	7	29
Plow	550 (annual) <u>150 (perennial)</u> 700	7	100
Harrow	1000 (annual x 2)	7	143
Cultimulcher	1000 (annual x 2)	8	125
Dyna-drive tiller	200 (perennial)	7	<u>29</u>
Total annual operating hours			426

The total annual operating hours of 426 divided by the average annual operating hours of 450 produces a percent allocable of 95% of the claimed cost or \$24,945.10.

Ford Versatile 276

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Stak Pak	300 (perennial)	3	100
Flail Chopper	600 (perennial)	5	120
Ditch blade	550 (annual) 200 (perennial) <u>750</u>	6	125
Square baler	350 (perennial)	4	88
Concrete roller	100 (annual)	7	<u>15</u>
Total annual operating hours			448

The difference between annual operating hours and average annual operating hours is less than one-half of one percent, therefore, percent allocable is 100% of the claimed cost or \$49,255.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 98%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 98%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$75,513, with 98% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3259.

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

JB:bmTC3259
November 13, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Oak Creek Farms, Inc.
Ronald Schmucker, VP
34105 Hwy 34 SE
Albany, Oregon 97321

The applicant owns and operates a grass seed farm operation in Tangent, 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 400 horsepower, 4x4 Big Bud tractor, located at 31014 Seven Mile Lane, Tangent, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$121,400
(Accountant's Certification was provided.)

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

The applicants state that prior to purchasing the equipment that enables them to pursue alternatives to open field burning, they open field burned as many of their perennial (400 acres) and annual (1600 acres) fields as the weather and smoke management program permitted.

They claim a reduction in open field burning of approximately 50% by treating their annuals with flail chopping, plowing, harrowing and cultipacking, land leveling, and cement rolling. Perennials are treated by baling off, windrowing, vacuuming and subsequently stack burning the bales and loaves.

4. Procedural Requirements

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 July 24, 1989, and the application for final certification was found to be complete on November 15, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; 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 does not recover or convert waste products into a salable or usable commodity. The straw is flail chopped and plowed into the soil.

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 gross annual income.

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 applicants claim they purchased the 12 point, 18" bottom plow to accomplish 600 acres of plowing in a timely manner so that they could accomplish other tasks required during the same time frame. The tractors already owned were inadequate to pull the Wil Rich plow. Prior to purchasing the Big Bud, the applicants state that they compared it to a 370 horsepower John Deere and found them to be in the same price range.

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 \$5,037 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.

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:

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Wil Rich plow	600 (annual)	5	<u>120</u>
Total Annual Operating Hours			120

The total annual operating hours of 120 divided by the average annual operating hours of 450 produces a percent allocable of 27%.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 27%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 27%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$121,400, with 27% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3260.

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

JB:bmTC3260
November 15, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Michael Berger, Partner
Berger Bros.
34125 Riverside Drive
Albany, Oregon 97321

The applicant owns and operates a grass seed farm operation in Albany, 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 190 hp John Deere 4850 tractor and a 50 hp John Deere 500 loader tractor, located at 29722 Hwy. 34, Albany, Oregon. The equipment is owned by the applicant.

John Deere 4850 tractor \$47,500
John Deere 500 loader tractor 5,500

Claimed equipment cost: \$53,000
(Accountant's Certification was provided.)

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

During the 70s and through the mid 80s the applicant treated both annuals (350 acres) and perennials (350 acres) principally by open field burning after harvesting.

Since that time, the applicant has added a flail chopper, round baler, plow, harrow, concrete roller, off-set disk cultivator, and the two tractors to his equipment inventory to enable him to pursue alternatives to open field burning.

The applicant states that after harvest his annual fields are flail chopped, the straw residue is plowed under, the fields are harrowed and rolled, and after planting the applicant relies on increased applications of chemicals for weed and disease control. The applicant uses the cultivator on some fields each year to remove weeds and volunteer sprouts. The applicant bales off and flail chops some of his perennial fields each year.

The applicant states that by utilizing the above described alternatives he has reduced annual open burning from 600 acres to less than 100 acres.

4. Procedural Requirements

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 September 20, 1989, and the application for final certification was found to be complete on November 7, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; 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 does not recover or convert waste products into a salable or usable commodity. On annual fields the straw is flail chopped and plowed into the soil; on perennial fields the straw is baled off and the remaining stubble is flail chopped. The baled straw is given away or stack burned.

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 gross annual income.

- 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.

- 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 \$10,407 to annually maintain and operate the equipment. These costs were considered in the return on investment calculation.

- 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.

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 for the John Deere 4350 tractor used in reducing acreage open field burned is as follows:

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Round Baler	260 (perennial)	4	65
Flail Chopper	350 (annual) <u>100</u> (perennial) 450	7	65
Plow	350 (annual)	7	50
Harrow	350 (annual)	7	150
Concrete Roller	350 (annual) <u>150</u> (2nd annual) 500	7	72
Off-set disk	300 (annual)	7	43
Cultivator	200 (annual)	7	<u>29</u>
Total annual operating hours			474

As the annual operating hours are greater than the average

The annual operating hours per implement for the John Deere 500 loader tractor used in reducing acreage open field burned is as follows:

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Stack Loader	240 (perennial)	3	80
Total annual operating hours			80

The total annual operating hours of 80 divided by the average annual operating hours of 450 produces a percent allocable of 18% or \$990 of the claimed cost of \$5,500.

The John Deere 4850's percent allocable (\$47,500) plus the John Deere 500 loader tractor's percent allocable (\$990) totals \$48,490 and divided by the claimed cost of \$53,000 produces a percent allocable for this application of 92%.

The applicant claims that the loader tractor's sole purpose is reduction of pollution from open field burning. It does not have a pto shaft to power other implements, horsepower is inadequate to pull other farm implements, there is no 3 point for attachments, and small farm jobs are accomplished with a previously owned 35 horsepower tractor that is too light to operate bale prongs for round bale loading and moving. Applicant further states that a bale prong purchased for attachment to an existing tractor would cost more than the John Deere 500 loader tractor with bale prongs. After review of the applicant's farm operation and because applicant prudently purchased used equipment for this single, vital function, the Department of Agriculture recommends that the actual cost of the John Deere 500 loader tractor be 100% allocable to pollution control.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 92%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the sole purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.

- d. The portion of the equipment that is properly allocable to pollution control is 92%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$53,000, with 92% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3261.

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

JB:bmTC3261
November 15, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Bi-Mor Stations, Inc.
P.O. Box 458
Medford, OR 97501

The applicant leases and operates a service station at 730 Redwood Hwy., Grants Pass, OR, facility no. 7557.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of four fiberglass underground storage tanks and piping, spill containment basins, tank monitor, line leak detectors, overflow alarm and sump.

Claimed facility cost	\$82,423
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in March, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in March, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel underground storage tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins, a sump and an overflow alarm.
- 3) For leak detection - Tank monitor and line leak detectors.

The applicant reported that soil testing was performed at the time of tank removal and some contaminated soil was removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$82,423) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

- b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tanks	\$19,850	37%(1)	\$7,345
Spill & Overfill Prevention:			
Spill containment basins	735	100	735
Overfill alarm	175	100	175
Sump	1,857	100	1,857
Leak Detection:			
Tank monitor	5,450	90 (2)	4,905
Line leak detectors	114	100	114
Labor and materials			
including fiberglass pipe	<u>54,242</u>	<u>100 (3)</u>	<u>54,242</u>
Total	\$82,423	84%	\$69,373

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$19,850 and the bare steel system is \$12,468, the resulting portion of the eligible tank cost allocable to pollution control is 37%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) The relatively high labor cost associated with this project was due to extremely high water table conditions that hampered construction.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 84%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$82,423 with 84% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3263.

Barbara J. Anderson:ew
(503) 229-5870
October 23, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Bi-Mor Stations, Inc.
P.O. Box 458
Medford, OR 97501

The applicant leases and operates a service station at 1998 Vine St., Grants Pass, OR, facility no. 8904.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three fiberglass underground storage tanks and piping, spill containment basins, tank monitor, overflow alarm, observation wells, float vent valves, a sump and Stage I vapor recovery equipment.

Claimed facility cost	\$79,273
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on February 19, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation February 19, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of six bare steel underground storage tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins, float vent valves, a sump and an overflow alarm.
- 3) For leak detection - Tank monitor and observation wells.

The applicant also installed Stage I vapor recovery equipment.

The applicant reported that soil testing was performed at the time of tank removal and contaminated soil was removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$79,273) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tanks	\$17,086	33%(1)	\$5,638
Spill & Overfill Prevention:			
Spill containment basins	605	100	605
Float vent valves	357	100	357
Overfill alarm	175	100	175
Sump	1,857	100	1,857
Leak Detection:			
Tank monitor	4,600	90 (2)	4,140
Observation wells	366	100	366
Stage I vapor recovery	427	100	427
Labor and materials including fiberglass pipe	<u>53,800</u>	<u>100 (3)</u>	<u>53,800</u>
Total	\$79,273	85%	\$67,365

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$17,086 and the bare steel system is \$11,429, the resulting portion of the eligible tank cost allocable to pollution control is 33%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) The relatively high labor cost associated with this project was due to extremely high water table conditions that hampered construction.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 85%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$79,273 with 85% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3264.

Barbara J. Anderson:ew
(503) 229-5870
October 23, 1990

Application No. TC-3265

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Hays-Moran Joint Venture
Robert W. Hays & Michael J. Moran
P.O. Box 458
Medford, OR 97501

The applicant owns and operates a gas station and food mart at 16021 Hwy. 101 S., Harbor, OR, facility no. 3591.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of fiberglass lining in five steel underground storage tanks, spill containment basins, tank monitor, line leak detectors, fiberglass piping and monitoring wells.

Claimed facility cost	\$ 62,245
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on January 16, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on January 11, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel tanks and galvanized piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass lining in five tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins.
- 3) For leak detection - Tank monitor, line leak detectors and monitoring wells.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$62,245) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tank lining	\$22,500	100%	\$22,500
Spill & Overflow Prevention:			
Spill containment basins	940	100	940
Leak Detection:			
Tank monitor	7,356	90 (1)	6,620
Line leak detectors	568	100	568
Monitoring wells	173	100	173
Labor & materials (includes fiberglass pipe)			
	<u>30,708</u>	<u>100</u>	<u>30,708</u>
Total	\$62,245	99%	\$61,509

- (1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 99%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$62,245 with 99% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3265.

Barbara J. Anderson:ew
(503) 229-5870
October 30, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Hays-Moran Joint Venture
Robert W. Hays & Michael J. Moran
P.O. Box 458
Medford, OR 97501

The applicant owns and operates a service station at 600 E. Main, Medford, OR, facility no. 3417.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of one STI-P3 underground storage tank, fiberglass lining on three existing tanks, fiberglass piping, spill containment basins, emergency shutoff valves, tank monitor, float vent valves, monitoring wells and Stage I vapor recovery equipment.

Claimed facility cost	\$ 82,440
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on July 5, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on July 5, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel tanks (one held heating oil) and galvanized piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - One STI-P3 tank, fiberglass tank lining on three existing tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins, emergency shutoff valves and float vent valves.
- 3) For leak detection - Tank monitor and monitoring wells.

The applicant also installed Stage I vapor recovery equipment.

The applicant reported that soil testing was performed at the time of tank removal and some contaminated soil was removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$82,440) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
STI-P3 tank	\$ 5,261	30%(1)	\$ 1,578
Fiberglass tank lining	13,500	100	13,500
Spill & Overfill Prevention:			
Spill containment basins	807	100	807
Emergency shutoff valves	370	100	370
Float vent valves	551	100	551
Leak Detection:			
Tank monitor	7,686	90 (2)	6,917
Monitoring wells	899	100	899
Stage I vapor recovery	286	100	286
Labor & materials (includes fiberglass pipe)	<u>53,080</u>	<u>100 (3)</u>	<u>53,080</u>
Total	\$82,440	95%	\$77,988

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$5,261 and the bare steel system is \$3,674, the resulting portion of the eligible tank cost allocable to pollution control is 30%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) High labor cost was due in part to the presence of power lines in the construction area.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$82,440 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3266.

Barbara J. Anderson:ew
(503) 229-5870
October 26, 1990

Application No. TC-3267

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Hays-Moran Joint Venture
Robert W. Hays & Michael J. Moran
P.O. Box 458
Medford, OR 97501

The applicant owns and operates a gas station and convenience store at 16 N. Front, Central Point, OR, facility no. 3598.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of four fiberglass tanks and piping, spill containment basins, tank monitor, line leak detectors, monitoring wells, sump, breakaways and Stage I vapor recovery equipment.

Claimed facility cost	\$ 79,272
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on July 17, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on July 17, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four bare steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins, sump and breakaways.
- 3) For leak detection - Tank monitor, line leak detectors and monitoring wells.

The applicant also installed Stage I vapor recovery equipment.

The applicant reported that soil testing was performed at the time of tank removal and some contaminated soil was removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$79,272) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
Fiberglass tanks	\$15,812	21%(1)	\$ 3,321
Spill & Overflow Prevention:			
Spill containment basins	780	100	780
Sump	1,857	100	1,857
Breakaways	691	100	691
Leak Detection:			
Tank monitor	5,450	90 (2)	4,905
Line leak detectors	1,021	100	1,021
Monitoring wells	153	100	153
Stage I vapor recovery Labor & materials (includes fiberglass pipe)	484 <u>53,024</u>	100 <u>100 (3)</u>	484 <u>53,024</u>
Total	\$79,272	84%	\$66,236

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$15,812 and the bare steel system is \$12,468, the resulting portion of the eligible tank cost allocable to pollution control is 21%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) High labor cost is due in part to the high groundwater table at the site during construction.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
 - c. The facility complies with DEQ statutes and rules.
 - d. The portion of the facility cost that is properly allocable to pollution control is 84%.
6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$79,272 with 84% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3267.

Barbara J. Anderson:ew
(503) 229-5870
October 26, 1990.

Application No. TC-3268

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Hays-Moran Joint Venture
Robert W. Hays & Michael J. Moran
P.O. Box 458
Medford, OR 97501

The applicant owns and operates a service station at 625 NE 7th Street, Grants Pass, OR facility no. 3599.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three STI-P3 tanks, fiberglass piping, spill containment basins, tank monitor, line leak detectors, overflow alarm, sump, monitoring well, float vent valves and breakaway devices.

Claimed facility cost	\$ 83,026
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on January 16, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on January 16, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - STI-P3 tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins, overflow alarm, sump and float vent valves.
- 3) For leak detection - Tank monitor, line leak detectors, monitoring wells and breakaway devices.

The applicant reported that soil testing was performed at the time of tank removal and some contaminated soil was removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$83,026) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
STI-P3 tanks	\$16,882	32%(1)	\$ 5,402
Spill & Overfill Prevention:			
Spill containment basins	585	100	585
Overfill alarm	175	100	175
Sump	1,857	100	1,857
Float vent valves	173	100	173
Breakaways	354	100	354
Leak Detection:			
Tank monitor	4,600	90 (2)	4,140
Line leak detectors	510	100	510
Monitoring wells	106	100	106
Labor & materials			
(includes fiberglass pipe)	<u>57,784</u>	<u>100 (3)</u>	<u>57,784</u>
Total	\$83,026	86%	\$71,086

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$16,882 and the bare steel system is \$11,429, the resulting portion of the eligible tank cost allocable to pollution control is 32%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) The applicant reported that the relatively high labor cost attached to this project was due to high groundwater conditions.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 86%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$83,026 with 86% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3268.

Barbara J. Anderson:ew
(503) 229-5870
October 26, 1990

Application No. TC-3269

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Bi-Mor Stations, Inc.
P.O. Box 458
Medford, OR 97501

The applicant leases and operates a service station at 1160 NE "E" Street, Grants Pass, OR, facility no. 7560.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three fiberglass tanks and piping, spill containment basins, tank monitor, line leak detector, overflow alarm, sump, monitoring wells, float vent valves and Stage I vapor recovery equipment.

Claimed facility cost	\$ 79,237
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in May, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in May, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four bare steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins, overflow alarm, sump and float vent valves.
- 3) For leak detection - Tank monitor, line leak detector and monitoring wells.

The applicant also installed Stage I vapor recovery equipment.

The applicant reported that soil testing was performed at the time of tank removal and some contaminated soil was removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$79,237) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tanks	\$17,086	33%(1)	\$ 5,638
Spill & Overflow Prevention:			
Spill containment basins	605	100	605
Overflow alarm	175	100	175
Sump	1,857	100	1,857
Float vent valves	357	100	357
Leak Detection:			
Tank monitor	4,600	90 (2)	4,140
Line leak detector	175	100	175
Monitoring wells	366	100	366
Stage I vapor recovery Labor & materials (includes fiberglass pipe)	427	100	427
	<u>53,589</u>	<u>100 (3)</u>	<u>53,589</u>
Total	\$79,237	85%	\$67,329

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$17,086 and the bare steel system is \$11,429, the resulting portion of the eligible tank cost allocable to pollution control is 33%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) High labor cost is due to high groundwater conditions during construction.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 85%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$79,237 with 85% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3269.

Barbara J. Anderson:ew
(503) 229-5870
October 29, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Troutman Enterprises, Inc.
P.O. Box 219
Maupin, OR 97037

The applicant owns and operates a cardlock station at Hwy 197 and Bakeoven Rd., Maupin OR, facility no. 7998.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three spill containment basins and two monitoring wells.

Claimed facility cost (Documentation of cost was provided)	\$ 1,897
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on July 1, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed in operation on July 1, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three cathodically protected tanks and piping with no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For spill and overflow prevention - Spill containment basins.
- 2) For leak detection - Monitoring wells.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$1,897) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Spill & Overfill Prevention:			
Spill containment basins	\$ 650	100%	\$ 650
Leak Detection:			
Monitoring wells	262	100	262
Labor & materials	<u>985</u>	<u>100</u>	<u>985</u>
Total	\$1,897	100%	\$1,897

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- 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 \$1,897 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3270.

Barbara J. Anderson:ew
(503) 229-5870
October 26, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

E. D. Dirksen & Sons, Inc.
1578 NE Airport Road
Roseburg, OR 97470

The applicant owns and operates a retail service station and cardlock at 1847 NE Diamond Lake Blvd., Roseburg, OR, facility no. 3465.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of four STI-P3 tanks and fiberglass piping, spill containment basins, tank monitor and float vent valves.

Claimed facility cost (Accountant's certification was provided)	\$82,111
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in June 30, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed in operation on July 2, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of eight bare steel underground storage tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - STI-P3 tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins and float vent valves.
- 3) For leak detection - Tank monitor system.

The applicant reported that soil testing was performed at the time of tank removal and some contaminated soil was removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$82,111) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
STI-P3 tanks	\$20,035	27%(1)	\$ 5,409
Fiberglass piping	13,722	100	13,722
Spill & Overflow Prevention:			
Spill containment basins	984	100	984
Float vent valves	150	100	150
Leak Detection:			
Tank monitor	8,460	90 (2)	8,460
Labor & materials	<u>38,760</u>	<u>100</u>	<u>38,760</u>
Total	\$82,111	81%	\$66,639

(1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$20,035 and the bare steel system is \$14,560, the resulting portion of the eligible tank cost allocable to pollution control is 27%.

(2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 81%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$82,111 with 81% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3271.

Barbara J. Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Jackson Oil, Inc.
P.O. Box 280
Canyon City, OR 97820

The applicant owns and operates a gas station at 133 N. Washington, Canyon City, OR, facility no. 4772.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of a tank monitor system, spill containment basins and line leak detectors.

Claimed facility cost (Documentation of cost was provided)	\$9,949
Percent allocable to pollution control	100%

3. Procedural Requirements

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 installation of the facility was substantially completed on February 10, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on September 10, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three bare steel tanks and galvanized piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Spill containment basins.
- 2) For leak detection - Tank monitor and line leak detectors.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$9,949) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Spill containment basins	\$ 621	100%	\$ 621
Leak Detection:			
Tank monitor	3,587	90 (1)	3,228
Line leak detectors	567	100	567
Labor & materials	<u>5,174</u>	<u>100</u>	<u>5,174</u>
Total	\$ 9,949	96%	\$ 9,590

- (1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 96%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$9,949 with 96% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3272.

Barbara Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Jackson Oil, Inc.
P.O. Box 280
Canyon City, OR 97820

The applicant owns and operates a cardlock station at 131 N. Washington, Canyon City, OR, facility no. 1990.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of a tank monitor system and spill containment basins.

Claimed facility cost (Documentation of cost was provided)	\$ 4,229
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on February 10, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on September 10, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three bare steel tanks and galvanized piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Spill containment basins.
- 2) For leak detection - Tank monitor system.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$4,229) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

- b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Spill & Overfill Prevention:			
Spill containment basins	\$ 621	100%	\$ 621
Leak Detection:			
Tank monitor	3,125	90 (1)	2,813
Labor & materials	<u>483</u>	<u>100</u>	<u>483</u>
Total	\$4,229	93%	\$3,917

- (1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 93%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$4,229 with 93% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3273.

Barbara Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Johnson Oil Company, Inc.
PO Box 629
Astoria, OR 97103

The applicant owns and operates a cardlock fueling facility at 620 Highway 101 Alternate, Astoria, OR, facility no. 1157.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy lining in two bare steel underground storage tanks, cathodic protection around tanks and steel piping for four tank systems, spill containment basins, float vent valves and underground preparation of the site for a tank monitor system.

Claimed facility cost \$ 27,359
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed on August 20, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on November 30, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of one fiberglass tank and steel piping and three bare steel tanks and piping with no corrosion protection, no leak detection equipment and spill and overfill prevention on two tanks.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Epoxy tank lining in two steel tanks and impressed current cathodic protection around all tanks and piping.
- 2) For spill and overfill prevention - Spill containment basins and float vent valves.
- 3) For leak detection - Underground preparation of the site for a tank monitor system to be installed at a later date.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$27,359) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Epoxy tank lining	\$14,774	100%	\$14,774
Cathodic protection	8,750	100	8,750
Spill & Overfill Prevention:			
Spill containment basins & float vent valves	1,950	100	1,950
Labor & materials including prep of site for tank monitor			
	<u>1,885</u>	<u>100</u>	<u>1,885</u>
Total	\$27,359	100%	\$27,359

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- 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 \$27,359 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3274.

Barbara J. Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Johnson Oil Company, Inc.
PO Box 629
Astoria, OR 97103

The applicant owns and operates a retail gas station, cardlock and convenience store at 469 West Marine Dr., Astoria, OR, facility no. 1270.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy lining in six underground storage tanks, cathodic protection on tanks and piping, spill containment basins, float vent valves and underground preparation of the site for a tank monitor system.

Claimed facility cost \$ 76,333
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed on August 20, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on November 1, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of six bare steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment. There is also a seventh kerosene tank at the site, not included in the project.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Epoxy tank lining and impressed current cathodic protection around tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins and float vent valves.
- 3) For leak detection - Underground preparation of the site for a tank monitor system to be installed by 1998.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$76,333) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Epoxy tank lining	\$43,791	100%	\$43,791
Cathodic protection	11,850	100	11,850
Spill & Overfill Prevention:			
Spill containment basins & float vent valves	5,850	100	5,850
Labor & materials including prep of site for tank monitor	<u>14,842</u>	<u>100</u>	<u>14,842</u>
Total	\$76,333	100%	\$76,333

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- 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 \$76,333 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3275.

Barbara J. Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Johnson Oil of Manzanita, Inc.
PO Box 629
Astoria, OR 97103

The applicant owns and operates a retail gas station, cardlock and minimart at 848 Hwy. 101, Manzanita, OR, facility no. 1228.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of one STI-P3 underground storage tank replacing three bare steel tanks, epoxy lining and cathodic protection in one existing steel tank, fiberglass piping, spill containment basins, monitoring wells and turbine leak detectors on these and a third existing fiberglass tank.

Claimed facility cost \$ 81,825
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed on May 5, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on April 21, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of one fiberglass tank, four bare steel tanks and galvanized piping for all tanks, with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - STI-P3 tank, epoxy tank lining, cathodic protection and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins.
- 3) For leak detection - Tank monitor, monitoring wells and turbine leak detectors.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$80,183. This represents a difference of \$1,642 from the applicant's claimed cost of \$81,825 due to a determination by the Department that the cost of the submersible pumps and turbines is not eligible pursuant to ORS 468.155 because it does not meet the definition of a pollution control facility.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered other than fiberglass versus STI-P3 tanks. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
STI-P3 tank	\$10,344	38%(1)	\$ 3,931
Epoxy tank lining	7,500	100	7,500
Cathodic protection	3,000	100	3,000
Fiberglass piping	20,000	100	20,000
Spill & Overfill Prevention:			
Spill containment basins	2,550	100	2,550
Leak Detection:			
Tank monitor	3,500	90 (2)	3,150
Monitoring wells	2,000	100	2,000
Turbine leak detectors	567	100	567
Labor & materials	<u>30,722</u>	<u>100</u>	<u>30,722</u>
Total	\$80,183	92%	\$73,420

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$10,344 and the bare steel system is \$6,388, the resulting portion of the eligible tank cost allocable to pollution control is 38%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 92%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$80,183 with 92% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3276.

Barbara J. Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Tansy Point Fuel Company
Clayton Johnson & Geraldine Johnson, Partners
PO Box 629
Astoria, OR 97103

The applicant owns and operates a marine fuel dock at 450 NE Skipanon Drive, Warrenton, OR.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy lining in two aboveground storage tanks.

Claimed facility cost (Documentation of cost was provided)	\$ 6,923
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on April 13, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation April 9, 1990.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of two bare steel aboveground tanks with no corrosion protection.

The applicant installed corrosion protection by lining the tanks with an epoxy lining system.

Based on information currently available, the applicant is in compliance with federal law in that a Spill Prevention Control and Countermeasure (SPCC) plan is on file at the facility.

The Department concludes that all of the costs claimed by the applicant (\$6,923) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection: Epoxy tank lining	\$6,923	100%	\$6,923
Total	\$6,923	100%	\$6,923

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the sole purpose of the claimed facility is to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- 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 \$6,923 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3277.

Barbara J. Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Jackson Oil, Inc.
P.O. Box 280
Canyon City, OR 97820

The applicant owns and operates a cardlock facility at West Highway, John Day, OR, facility no. 4203.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of a tank monitor system, spill containment basins and line leak detectors.

Claimed facility cost \$ 22,232
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed on February 10, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on September 10, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four fiberglass lined tanks and cathodically protected steel piping with no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For overflow prevention - Spill containment basins.
- 2) For leak detection - Tank monitor and line leak detectors.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$22,232) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Spill containment basins	\$ 828	100%	\$ 828
Leak Detection:			
Tank monitor	5,563	90 (1)	5,007
Line leak detectors	945	100	945
Labor & materials	<u>14,896</u>	<u>100</u>	<u>14,896</u>
Total	\$22,232	97%	\$21,676

- (1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 97%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$22,232 with 97% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3278.

Barbara Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Hood River Supply Association
PO Box 209
Hood River, OR 97031

The applicant owns and operates a farm supply cooperative at 1995 12th Street, Hood River, OR, facility no. 3522.

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

2. Description of Claimed Facility

The claimed pollution control facility described in this application is the installation of six fiberglass underground storage tanks and double wall fiberglass piping, spill containment basins, tank monitor, line leak detectors, monitoring well, overflow alarm, piping for Stage II vapor recovery.

Claimed facility cost	\$145,791
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed in August 31, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on August 31, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of seven bare steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to underground storage tank requirements established 12-22-88, the applicant installed:

- (1) For corrosion protection - Fiberglass tanks and double wall fiberglass piping.
- (2) For spill and overflow prevention - Spill containment basins and overflow alarm.
- (3) For leak detection - Tank monitor, line leak detector and monitoring well.

The applicant also installed piping for Stage II vapor recovery.

The applicant reported that soil testing was performed at the time of tank removal. Some contaminated soil was discovered and is being remediated under DEQ supervision.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$145,791) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tanks	\$ 31,702	35% (1)	\$ 11,096
Fiberglass piping (includes vapor recovery)	13,500	100	13,500
Spill & Overfill Prevention:			
Spill containment basin	1,582	100	1,582
Overfill alarm	175	100	175
Leak Detection:			
Tank monitor	8,783	90 (2)	7,905
Line leak detectors	5,808	100	5,808
Monitoring wells	238	100	238
Labor & materials	<u>84,003</u>	<u>100</u>	<u>84,003</u>
Total	\$145,791	85%	\$124,307

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$31,702 and the bare steel system is \$20,500, the resulting portion of the eligible tank cost allocable to pollution control is 35%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, such as inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 85%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$145,791 with 85% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3279.

Barbara J. Anderson:ew
(503) 229-5870
November 6, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Deschutes Country Store, Inc.
19745 Baker Road
Bend, OR 97702

The applicant owns and operates a convenience store and gas station at 19745 Baker Road, Bend, OR, facility no. 3637. Application was made for a tax credit for a water pollution control facility.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of sacrificial anode cathodic protection on four steel tanks and double wall fiberglass piping, spill containment basins, tank monitor, line leak detectors, float vent valves, sumps, shear valves and piping for Stage II vapor recovery.

Claimed facility cost	\$ 53,576
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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 installation of the facility was substantially completed on October 19, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was operated continuously throughout the project.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four bare steel tanks and galvanized piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Sacrificial anode cathodic protection and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins, float vent valves, sumps and shear valves.
- 3) For leak detection - Tank monitor and line leak detectors.

The applicant also installed piping for Stage II vapor recovery.

The applicant reported that soil testing and tank tightness testing were performed prior to the project and no contamination or leakage was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$53,576) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Cathodic protection	\$ 1,192	100%	\$ 1,192
Fiberglass piping (includes Stage II vapor recovery)	3,696	100	3,696
Spill & Overfill Prevention:			
Spill containment basins	819	100	819
Float vent valves	440	100	440
Sumps	1,975	100	1,975
Shear valves	321	100	321
Leak Detection:			
Tank monitor	6,461	90 (1)	5,815
Line leak detectors	643	100	643
Labor & materials	<u>38,029</u>	<u>100</u>	<u>38,029</u>
Total	\$53,576	99%	\$52,930

(1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 99%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$53,576 with 99% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3280.

Barbara J. Anderson:ew
(503) 229-5870
November 7, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

L & D of Oregon, Inc.
dba Red Carpet Carwash No. 1
PO Box 5323
Bend, OR 97708

The applicant owns and operates a service station, carwash and snack shop at 1144 NE 3rd, Bend, OR, facility no. 642.

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

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of two baffled STI-P3 double wall tanks and double wall fiberglass piping, spill containment basins, overflow vent valves, breakaway automatic shutoff devices, tank monitor, turbine leak detectors, monitoring wells and Stage I and Stage II vapor recovery.

Claimed facility cost \$ 114,699
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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 installation of the facility was substantially completed on May 11, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on May 14, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of eight steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Double wall baffled STI-P3 tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins, float vent valves and breakaways.
- 3) For leak detection - Tank monitor, turbine leak detectors and monitoring wells.

The applicant also installed Stage I vapor recovery equipment and piping and a product storage facility for Stage II vapor recovery. (Stage I is built into the tanks.)

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$114,699) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

In determining the percent of the eligible 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 equipment 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.

There is no annual percent return on investment as the applicant claims no gross annual income from the facility.

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
STI-P3 tanks (includes Stage I vapor recovery)	\$ 21,292	56% (1)	\$ 11,924
Fiberglass piping	14,680	100	14,680
Spill & Overfill Prevention:			
Spill containment basins & float vent valves	2,010	100	2,010
Breakaways	1,190	100	1,190
Leak Detection:			
Tank monitor	7,242	90 (2)	6,518
Turbine leak detectors	818	100	818
Monitoring wells	621	100	621
Stage II vapor recovery	3,004	100	3,004
Labor & materials	<u>63,842</u>	<u>100 (3)</u>	<u>63,842</u>
Total	\$114,699	91%	\$104,607

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank system by using a formula based on the difference in cost between the protected tank system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank system cost is \$21,292 and the bare steel system is \$9,320, the resulting portion of the eligible tank cost allocable to pollution control is 56%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) The applicant reported that the high labor cost was due to solid rock encountered during construction and the piping distance (200 ft) from tanks to gas islands.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 91%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$114,699 with 91% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3285.

Barbara J. Anderson:ew
(503) 229-5870
November 7, 1990



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: 12/14/90
Agenda Item: C
Division: HSW
Section: HWTA

SUBJECT:

Authorization for Rulemaking Hearing on Amendments and Corrections to the Hazardous Waste Rules.

PURPOSE:

Request for authorization to conduct a public hearing on amending Oregon Administrative Rules (OAR) to incorporate certain federal hazardous waste corrections, regulations and amendments promulgated under the Resource Conservation and Recovery Act (RCRA), the Hazardous and Solid Waste Amendments of 1984 (HSWA), and the Toxic Substance Control Act (TSCA).

This is the latest in a series of rulemakings to adopt by reference federal regulations in order for the Department to retain authorization from the Environmental Protection Agency (EPA) to implement the base RCRA program and HSWA regulations in lieu of EPA. Previous rulemakings occurred on May 29, 1987, December 11, 1987, July 8, 1988, and June 2, 1989.

Regulations governing the management of polychlorinated biphenyls (PCBs) are being proposed for adoption to update the Department of Environmental Quality's (DEQ, Department) regulations and to maintain equivalency with the federal program.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Potential Strategy, Policy, or Rules
 - Agenda Item for Current Meeting
 - Other: (specify)
- Authorize Rulemaking Hearing

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Agenda Item: C
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Proposed Rules	Attachment <u>A</u>
Rulemaking Statements	Attachment <u>B</u>
Fiscal and Economic Impact Statement	Attachment <u>B</u>
Public Notice	Attachment <u>C</u>
<input type="checkbox"/> Issue a Contested Case Order	
<input type="checkbox"/> Approve a Stipulated Order	
<input type="checkbox"/> Enter an Order	
Proposed Order	Attachment <u> </u>
<input type="checkbox"/> Approve Department Recommendation	
<input type="checkbox"/> Variance Request	Attachment <u> </u>
<input type="checkbox"/> Exception to Rule	Attachment <u> </u>
<input type="checkbox"/> Informational Report	Attachment <u> </u>
<input type="checkbox"/> Other: (specify)	Attachment <u> </u>

DESCRIPTION OF REQUESTED ACTION:

Authorization is requested to conduct a public hearing on proposed amendments to the Department's hazardous waste regulations, Chapter 340, Divisions 100, 101, 102, 104, 105 106 and 110. The federal amendments and rules proposed for adoption and the state regulations proposed to be amended, corrected or deleted are evaluated and summarized in Attachment D.

AUTHORITY/NEED FOR ACTION:

<input type="checkbox"/> Required by Statute: _____	Attachment <u> </u>
Enactment Date: _____	
<input checked="" type="checkbox"/> Statutory Authority: <u>ORS 466.020</u>	Attachment <u> </u>
<input type="checkbox"/> Pursuant to Rule: _____	Attachment <u> </u>
<input type="checkbox"/> Pursuant to Federal Law/Rule: _____	Attachment <u> </u>
<input type="checkbox"/> Other: _____	Attachment <u> </u>
<input checked="" type="checkbox"/> Time Constraints: (explain)	

States are required to adopt federal regulatory changes in one year "clusters." A rule "cluster" is a set of federal regulations promulgated by the EPA between July 1 of any given year and June 30 of the following year. This rulemaking will ensure that our program is current with the federal program as of July 1, 1990.

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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 ___
Summary of Rules	Attachment <u>D</u>

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The regulated community affected by these rules are those who generate, treat, store and dispose of hazardous wastes and PCBs.

The federal HSWA rules proposed for adoption are currently in effect in Oregon and are being implemented by the EPA. Therefore, no additional requirements on the regulated community are being added by the state. The most significant HSWA regulations being proposed for adoption are the second-third and third-third land disposal restrictions (OAR 340-100-002(1)) and the toxicity characteristic regulations (OAR 340-100-002(1)) (TC Rule). The Department's temporary TC Rule (OAR 340-101-024) will be deleted and replaced by the adoption (OAR 340-100-002(1)) of the federal TC regulations.

In addition, under the Department's current temporary TC Rule, the State prohibits treatment or disposal facilities from receiving and managing from off-site newly designated TC hazardous waste without a final permit. Under federal interim status requirements, such facilities could operate without a permit. The Department's temporary rule precludes such operations until Division 120 siting standards and other pertinent permitting requirements are met. The Department proposes to make this rule permanent for all newly designated hazardous waste (see OAR 340-104-001(6), 340-105-010(2)(a)).

The remaining RCRA rules being proposed for adoption, and the amendments to the state hazardous waste regulations, are housekeeping measures, either corrections or clarifications of existing state regulations. These amendments will not affect the regulated community because the regulations being corrected or clarified are already in effect. For example, state amendments requiring prospective treatment or disposal facilities to receive a final permit before managing newly

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regulated hazardous wastes received from off-site (OAR 340-104-001(6), 340-105-010(2)(a)) simply clarify that such facilities must meet the state's current hazardous waste siting requirements before such operations may proceed.

The Department is not proposing to adopt recent federal notices which clarify that spent chlorinated fluorocarbons (CFCs) used in the heating and air conditioning industry are non-hazardous waste. The state program is currently more stringent than the federal program, in that the state regulates spent CFCs as hazardous waste under the hazardous waste "ten percent rule" (OAR 340-101-033). (The state's "ten percent rule" classifies certain federal hazardous wastes as state hazardous wastes if found in quantities of ten percent or greater). Although the regulation of CFCs as a hazardous waste in Oregon is more stringent than EPA regulation, the Department does not recommend making any regulatory changes until the issue can be considered more fully by an advisory committee. At that time, the Department intends to evaluate the repercussions of designating spent CFCs as non-hazardous wastes and return to the Environmental Quality Commission (EQC) with regulatory recommendations.

At a previous meeting, the Commission approved the Department's recommendation to retain more stringent Small Quantity Generator (SQGs generate more than 220 pounds but less than 2,200 pounds of hazardous waste in one calendar month) exception reporting requirements. The Department's rule requires SQGs to submit a full exception report in writing to the Department if SQGs do not receive confirmation from the treatment, storage or disposal facility of receipt of their hazardous wastes. The Department believes it is necessary to know if SQG wastes have been properly manifested and managed. In today's proposed rulemaking, the Department is adding OAR 340-102-042 and correcting OAR 340-102-044 to clarify the state's existing exception reporting requirements for SQGs.

Finally, the Department proposes to adopt new federal PCB regulations (OAR 340-110-001(3)) which require PCB handlers to ship PCB wastes using hazardous waste manifests and to notify the Department of their PCB activities. In addition, the regulation requires PCB facilities to have closure plans and financial assurance. The Department maintains consistency with the federal PCB management program by adopting these regulations.

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PROGRAM CONSIDERATIONS:

Adoption of the second-third and third-third land disposal restrictions and the TC Rule will increase the time it will take to do generator inspections and to document findings. Inspection resources must either increase, or the number of inspections must decrease, in order to accommodate the increase in workload.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Authorize the Department to hold a public hearing to solicit comments on the incorporation by reference of federal regulations and amendments to the state hazardous waste regulations. (The Department is required to adopt federal regulations within specified time frames. Base RCRA regulations promulgated by EPA through June 30, 1990 must be adopted by July 1, 1991).

The Department must evaluate the environmental benefits of retaining a CFC program more stringent than EPA. After completing its evaluation, the Department will return to the EQC with a CFC regulatory recommendation.

2. Authorize the Department to hold a public hearing to solicit comments on (1) incorporating by reference certain federal hazardous waste regulations, including the less stringent federal SQG regulations and CFC notices; and (2) amending the state only hazardous waste regulations.
3. Consider not adopting further portions of the federal hazardous waste program. This was discussed at the August 1990 EQC Work Session. The direction given the Department by the EQC was to continue to pursue authorization and adopt the necessary rules to remain authorized.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends Alternative 1 be chosen in order to remain authorized for the base RCRA program and to achieve authorization for the remaining portions of the RCRA and HSWA programs from EPA, and to further evaluate the CFC rule.

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CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE
POLICY:

The Department's policy is to seek and maintain authorization for the federal hazardous waste program and to implement a hazardous waste program no more stringent than the federal program. Only when there is a clear reason to ensure greater protection of the public and the environment should the Department's program be more stringent than EPA's. The addition, deletion or modification of waste streams, such as CFCs, will generally be assessed by an advisory committee prior to EQC consideration.

ISSUES FOR COMMISSION TO RESOLVE:

Should the Department maintain RCRA authorization by going to hearing on these federal rules?

INTENDED FOLLOWUP ACTIONS:

Conduct a public hearing January 17, 1991; assemble and evaluate testimony and adopt the new regulations and amendments at the March 8, 1991 Environmental Quality Commission meeting.

Approved:

Section: Ray W. Brown

Division: Environmental Quality

Director: John H. ...

Report Prepared By: Gary Calaba

Phone: 229-6534

Date Prepared: November 26, 1990

gc/gjc
EQC121490

Before the Environmental Quality Commission of the State of Oregon

In the Matter of Amending and) Proposed Amendments and
Correcting OAR 340, Divisions 100,) Corrections
101, 102, 104, 105, 106, and 110)

Unless otherwise indicated, material enclosed in brackets [] is proposed to be deleted and material that is underlined is proposed to be added.

1. Rule 340-100-001 is proposed to be amended as follows:

Purpose and scope.

340-100-001 (1) The Department finds that increasing quantities of hazardous waste are being generated in Oregon which, without adequate safeguards, can create conditions that threaten public health and the environment. It is therefore in the public interest to establish a comprehensive program to provide for the safe management of such waste.

(2) The purpose of the management program contained in Divisions 100 to 110 and 120 of this Chapter is to control hazardous waste from the time of generation through transportation, storage, treatment and disposal. Toxics use reduction, hazardous waste reduction, hazardous [W]waste [reduction] minimization [at the point of generation], beneficial use, recycling and treatment are given preference to land disposal. To this end, the Department intends to minimize the number of disposal sites and to tightly control their operation.

(3) Divisions 100 to 106 incorporate, by reference, hazardous waste management regulations of the federal program, included in 40 CFR Parts 260 to 266, 268, 270 and Subpart A of 124, into Oregon Administrative Rules. Therefore, persons must consult these parts of 40 CFR in addition to Divisions 100 to 106 and 120 of these rules to determine all applicable hazardous waste management requirements.

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(4) A secondary purpose is to obtain EPA Final Authorization to manage hazardous waste in Oregon in lieu of the federal program.

2. Rule 340-100-002 is proposed to be corrected and amended as follows:

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-100-002 (1) Except as otherwise modified or specified by OAR Chapter 340, Divisions 100 to 106, 109 and 120, the rules and regulations governing the management of hazardous waste, including its generation, transportation [by air or water], treatment, storage and disposal, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Parts 260 to 266, 268, 270 and Subpart A of 124, and amendments thereto promulgated [prior to] through July 1, 19[86]90, [and amendments listed below in section (2) of this rule] are adopted by reference and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080, and 466.090 to 466.215.

[(2) In addition to the regulations and amendments promulgated prior to July 1, 1986, as described in section (1) of this rule, the following amendments to Title 40 Code of Federal Regulations, Part 260 to 266, 270 and Subpart A of 124, as published in volumes 51 and 52 of the Federal Register (FR), are adopted and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080, and 466.090 to 466.215:

(a) Amendments pertaining to liability coverage for hazardous waste management facilities, in 51 FR 25354-56 (July 11, 1986).

(b) Revised standards for hazardous waste storage and treatment tank systems, in 51 FR 25470-86 (July 14, 1986).

(c) Amendments to the rules concerning identification and listing of hazardous waste, in 51 FR 28298-310 (August 6, 1986).

(d) Technical corrections to the HSWA final codification rule, in 51 FR 28556 (August 8, 1986).

(e) Amendments to the rules concerning exports of hazardous waste, in 51 FR 28682-86 (August 8, 1986).

(f) corrections to the revised standards for hazardous waste storage and treatment tank systems, in 51 FR 29430-31 (August 15, 1986).

(g) Amendments clarifying the listing for spent pickle liquor from steel finishing operations, in 51 FR 33612 (September 22, 1986).

(h) Amendments concerning the waste minimization certification by hazardous waste generators, in 51 FR 35192-94 (October 1, 1986).

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(i) Amendments to the rules concerning the identification and listing of hazardous waste, in 51 FR 37728-29 (October 24, 1986).

(j) Amendments to the interim status standards for hazardous waste surface impoundments, in 52 FR 8708-9 (March 19, 1987).

(k) Technical corrections to the rules concerning burning of hazardous waste fuel and used oil fuel in boilers and industrial furnaces, in 52 FR 11821-22 (April 13, 1987).

(l) Technical corrections to the definition of solid waste, in 52 FR 21306-7 (June 5, 1987).

(m) Amendments to the rules concerning the development of corrective action programs for hazardous waste land disposal facilities, in 52 FR 23450 (June 22, 1987).

(n) Correction to the amended rules concerning the development of corrective action programs for hazardous waste land disposal facilities, in 52 FR 33936 (September 9, 1987).

(o) Amends incorporation by reference of revised manual SW-846, in 52 FR 8072 (March 16, 1987).

(p) Amendment to rules concerning groundwater monitoring; establishes an Appendix IX list of hazardous constituents, in 52 FR 25942 (July 9, 1987).

(q) Identification and listing of hazardous wastes; a technical correction concerning identifying that residues in containers or liners are hazardous waste and not the containers, in 52 FR 26012 (July 10, 1987).

(r) Amendments to the liability requirements for treatment, storage or disposal facilities; allows corporate guarantee and other financial mechanisms to cover liability in 52 FR 44314 (November 18, 1987); and 53 FR 33938 (September 1, 1988) respectively.

(s) Establishes new standards for permitting miscellaneous hazardous waste management units, in 52 FR 46946 (December 10, 1987).

(t) Establishes land disposal restrictions for f-listed solvents and dioxin containing wastes; prescribes treatment standards using toxicity characteristic leaching procedures (TCLP), in 51 FR 40572 (November 11, 1986).

(u) Corrections to the November 7, 1986 regulations concerning land disposal restrictions; the addition of applicable section to both Parts 264 and 265, in 52 FR 21010 (June 4, 1987).

(v) Amendments pertaining to the November 7, 1986 regulations concerning land disposal restrictions; rescinds non-migration petition authority and establishes "California List", in 52 FR 25760 (July 8, 1987).

(w) Amendments to the test methods in the July 8, 1987 land disposal restrictions known as the "California List," 52 FR 41295 (October 27, 1987).

(x) HSWA Codification Rules pertaining primarily to corrective action, in 52 FR 45788 (December 1, 1987).

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(y) Amendments pertaining to the regulations concerning treatability studies in 53 FR 27290 (July 19, 1988).

(z) Regulations prohibiting the land disposal of the "First Third" of hazardous wastes; assigns treatment standards for wastewaters and nonwastewaters, in 53 FR 31138 (August 17, 1988).

(aa) Amendments pertaining to regulations governing the modifications of hazardous waste management permits, in 53 FR 37912 (September 28, 1988).

(bb) Corrections to the September 28, 1988 regulations concerning permit modifications, in 53 FR 41649 (October 24, 1988).

(cc) Clarification of surface impoundment retrofitting requirements as they pertain to closure requirements, in 53 FR 24717 (June 30, 1988).

(dd) Amendments pertaining to groundwater monitoring and statistical evaluation procedures, in 53 FR 39720 (October 11, 1988).

(ee) Amendments pertaining to the regulations governing wastes from metal smelting operations; relists potliners and other metal wastes, in 53 FR 35412 (September 13, 1988).

(ff) Corrections to the August 15, 1986 regulations pertaining to hazardous waste storage and treatment tanks, in 53 FR 34079 (September 2, 1988).

(gg) Amendment to the September 22, 1986 rules concerning spent pickle liquor, in 52 FR 28697 (August 3, 1987).

(hh) Amendments to the rules concerning the identification and listing of hazardous waste; deletion of dextran and strontium sulfide from the list in 40 CFR 261.33(f), in 53 FR 43878 and 43884 (October 31, 1988).

(ii) Technical corrections; identification and listing of hazardous waste; 40 CFR Part 261, in 53 FR 13382 (April 22, 1988).]

(Rev. [6/2/89]3/8/91)

3. Rule 340-100-003 is proposed to be corrected as follows:

Confidentiality.

340-100-003 (1) The provisions of this rule replace the provisions of 40 CFR 260.2.

(2) Records, reports, and information submitted pursuant to these rules may be claimed as confidential by the submitter. Such claim must be asserted at the time of submission by stamping the words "confidential business information" or the equivalent on each page containing such information. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with

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ORS 192.500 and [459.460] 466.090(2).

(3) Records, reports, and information submitted pursuant to these rules shall be made available to EPA upon request. If the records, reports, or information has been submitted under a claim of confidentiality, the state shall make that claim of confidentiality to EPA for the requested records, reports or information. The federal agency shall treat the records, reports or information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

(Comment: It is suggested that claims of confidentiality be restricted to that information considered absolutely necessary and that such information be clearly separated from the remainder of the submission.)

4. Rule 340-100-004 is proposed to be amended as follows:

Table of contents, Divisions 100 to 110 and 120.

340-100-004 The following Divisions including the incorporation of regulations in 40 CFR Parts 260 to 266, 268, 270 and 124, comprise the Oregon hazardous waste management program:

<u>Division</u>	<u>Subject</u>
100	Hazardous Waste Management System: General
101	Identification and Listing of Hazardous Waste
102	Standards Applicable to Generators of Hazardous Waste
103	Standards Applicable to Transporters of Hazardous Waste [by Air or Water]
104	Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
105	Management Facility Permits
106	Permitting Procedures
108	Spills and Other Incidents
109	Management of Pesticide Wastes
110	Polychlorinated Biphenyls (PCBs)
<u>120</u>	<u>Additional Siting and Permitting Requirements for Hazardous Waste and PCB Treatment and Disposal Facilities</u>

5. Rule 340-100-010 is proposed to be corrected as follows:

Definitions.

340-100-010 (1) The definitions of terms contained in this

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rule modify, or are in addition to, the definitions contained in 40 CFR 260.10.

(2) When used in Divisions 100 to 110 of this Chapter, the following terms have the meanings given below:

(a) "Administrator" means:

(A) The "Department," except as specified in paragraphs

(2)(a)(B) or (C) of this rule;

(B) The "Commission," when used in 40 CFR 261.10 and 261.11;

or

(C) The Administrator of the U.S. Environmental Protection Agency, when used in 40 CFR 262.50.

(b) "Aquatic LC₅₀" (median aquatic lethal concentration) means that concentration of a substance which is expected in a specific time to kill 50% of an indigenous aquatic test population (i.e., fish, insects or other aquatic organisms). Aquatic LC₅₀ is expressed in milligrams of the substance per liter of water.

(c) "Beneficiation of ores and minerals" means the upgrading of ores and minerals by purely physical processes (e.g., crushing, screening, settling, flotation, dewatering and drying) with the addition of other chemical products only to the extent that they are a non-hazardous aid to the physical process (such as flocculants and deflocculants added to a froth-flotation process).

(d) "Collection." See "Storage."

(e) "Commission" means the Environmental Quality Commission.

(f) "Department" means the Department of Environmental Quality except it means the Commission when the context relates to a matter solely within the authority of the Commission such as: the adoption of rules and issuance of orders thereon pursuant to ORS [459.440]466.020, [459.445]466.075 and [468.903]466.510; the making of findings to support declassification of hazardous wastes pursuant to ORS [459.430(3)]466.015(3); the issuance of exemptions pursuant to ORS [459.505(2)]466.095(2); the issuance of disposal site permits pursuant to ORS [459.580(2)]466.140(2); and the holding of hearings pursuant to ORS [459.560]466.130, [459.580(2)]466.140(2), [459.620]466.170, [459.650]466.185, and [459.660]466.190.

(g) "Director" means:

(A) The "Department," except as specified in paragraph

(2)(g)(B) of this rule; or

(B) The "permitting body," as defined in section (2) of this rule, when used in 40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17.

(h) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste or hazardous substance into or on any land or water so that the hazardous waste or hazardous substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters of the state as defined in ORS 468.700.

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(i) "EPA" or "Environmental Protection Agency" means the Department of Environmental Quality.

(j) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department.

(k) "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980, or is in existence on the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit. A facility has commenced construction if:

(A) The owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either

(B)(i) A continuous on-site, physical construction program has begun, or

(ii) The owner or operator has entered into contractual obligations--which cannot be cancelled or modified without substantial loss--for physical construction of the facility to be completed within a reasonable time.

(l) "Extraction of ores and minerals" means the process of mining and removing ores and minerals from the earth.

(m) "Generator" means the person who, by virtue of ownership, management or control, is responsible for causing or allowing to be caused the creation of a hazardous waste.

(n) "Hazardous substance" means any substance intended for use which may also be identified as hazardous pursuant to Division 101.

(o) "Hazardous waste" means a hazardous waste as defined in 40 CFR 261.3.

(p) "Identification number" means the number assigned by EPA to each generator, transporter, and treatment, storage and disposal facility.

(q) "License." See "Permit."

(r) "Management facility" means a hazardous waste treatment, storage or disposal facility.

(s) "Off-site" means any site which is not on-site.

(t) "Oxidizer" means any substance such as a chlorate, permanganate, peroxide, or nitrate, that yields oxygen readily or otherwise acts to stimulate the combustion of organic matter (see 40 CFR 173.151).

(u) "Permitting body" means:

(A) The Department of Environmental Quality, when the activity or action pertains to hazardous waste storage or treatment facility permits; or

(B) The Environmental Quality Commission, when the activity or action pertains to hazardous waste disposal facility permits.

(v) "Permit" or "license" means the control document that contains the requirements of ORS Chapter [459]466 and Divisions

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104 to 106 and 120. Permit includes permit-by-rule and emergency permit. Permit does not include any permit which has not yet been the subject of final Department action, such as a draft permit or a proposed permit.

(w) "RCRA" or "Resource Conservation and Recovery Act," when used to refer to a federal law, means Oregon law.

(x) "RCRA permit" means Oregon hazardous waste management facility permit.

(y) "Regional Administrator" means:

(A) The "Department," except as specified in paragraphs (2)(y)(B) or (C) of this rule;

(B) The "permitting body," as defined in section (2) of this rule, when used in 40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17.

(C) The "Commission," when used in 40 CFR 260.30 through 260.41.

(z) "Residue" means solid waste as defined in 40 CFR 261.2.

(aa) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

(bb) "Spill" means unauthorized disposal.

(cc) "Storage" or "collection" means the containment of hazardous waste either on a temporary basis or for a period of years, in a manner that does not constitute disposal of the hazardous waste.

(dd) "Waste management unit" means a contiguous area of land on or in which waste is placed. A waste management unit is the largest area in which there is a significant likelihood of mixing of waste constituents in the same area. Usually this is due to the fact that each waste management unit is subject to a uniform set of management practices (e.g., one liner and leachate collection and removal system). The provisions in the Division 104 regulations (principally the technical standards in Subparts K-N of 40 CFR Part 264) establish requirements that are to be implemented on a unit-by-unit basis.

6. Rule 340-100-011 is proposed to be corrected as follows:

References.

340-100-011 (1) In addition to the publications listed in 40 CFR 260.11, when used in Divisions 100 to 110 and 120, the following publications are incorporated by reference:

(a) Code of Federal Regulations, Title 40, U.S. Environmental Protection Agency.

(b) Code of Federal Regulations, Title 49, U.S. Department of Transportation.

(2) The references listed in section (1) of this rule and in 40 CFR 260.11 are available for inspection at the Department of

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Environmental Quality, [522]811 SW [Fifth]Sixth Ave., Portland, Oregon, 97204. These materials are incorporated as they exist on [April 30, 1985]July 1, 1990.

7. Rule 340-101-001 is proposed to be corrected as follows:

Purpose and scope.

340-101-001 (1) The purpose of this Division is to identify those residues which are subject to regulation as hazardous wastes under Divisions 100 to 108 of this Chapter.

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

8. Temporary rule OAR 340-101-024 is proposed to be deleted as follows:

[Toxicity Characteristic.

340-101-024 (1) Effective September 25, 1990, generators who test their residues to determine whether the residues are a hazardous waste exhibiting the characteristic of toxicity [for contaminants with the hazardous waste codes D004, D005, D006, D007, D008, D009, D010, D011, D012, D013, D014, D015, D016, and D017] shall comply with 40 CFR 261.24 as found in 55 FR, No. 61, pg. 11862, March 29, 1990, and the corrections in FR 55, Vol. 126, pg. 26966-26998, June 29, 1990.

(2) Effective September 25, 1990, any treatment or disposal facility managing a state or federal toxicity characteristic (TC) hazardous waste as designated in 40 CFR 261.24, 55 FR, No. 61, pg. 11862, March 29, 1990, and the corrections in FR 55, Vol. 126, pg. 26966-26998, June 29, 1990, resulting from off-site generation must comply with OAR Chapter 340, Divisions 100-120, and shall obtain a permit prior to accepting or managing these wastes.]

[(Adopted 8/10/90)](Rev. 3/8/91)

9. Rule 340-101-033 is proposed to be amended as follows:

Additional hazardous wastes.

340-101-033 (1) The residues identified in sections (2) and (3) of this rule are hazardous wastes and are added to and made a part of the list of hazardous wastes in 40 CFR 261.33.

(2) Any residue, including but not limited to manufacturing

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process wastes and unused chemicals that has either:

(a) A 3% or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(e); or

(b) A 10% or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(f).

(3) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water, of either:

(a) A residue identified in subsection (2)(a); or

(b) A residue identified in subsection (2)(b).

(c) A residue identified in subsections (2)(a) or (2)(b) as a hazardous waste has the hazardous waste letters "OR" followed by the corresponding hazardous waste number(s) in 40 CFR 261.33(e) and (f).

(4) The wastes identified in subsections (2)(a) and (3)(a) of this rule are identified as acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in 261.5(e).

(Comment: Sections (2) and (3) of this rule shall be applied to a manufacturing process waste only in the event it is not identified elsewhere in this Division, but prior to application of section (5) of this rule.)

(5)(a) A pesticide residue or pesticide manufacturing residue is a toxic hazardous waste if a representative sample of the residue exhibits a 96-hour aquatic LC₅₀ equal to or less than 250 mg/l. (b) A pesticide residue or pesticide manufacturing residue identified in subsection (5)(a) of this rule but not in 40 CFR 261.24 or listed elsewhere in Subpart D of 40 CFR Part 261, has the Hazardous Waste Number of X001 and is added to and made a part of list of hazardous wastes in 40 CFR 261.31.

(6)(a) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates identified in subsection (6)(b) this rule are added to and made a part of the list in 40 CFR 261.33(e):

(b) P999. . . .Nerve agents (such as GB (Sarin) and VX).

(7) Hazardous waste identified in this section is not subject to 40 CFR Part 268.

(Rev. 3/8/91)

10. Rule 340-102-010 is proposed to be corrected and amended as follows:

Purpose, Scope and Applicability

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340-102-010 (1) The purpose of this Division is to establish standards for generators of hazardous waste.

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3) In addition to the provisions of 40 CFR Parts 262.10, a person identified in section (4) of this rule who produces a pesticide residue, excluding unused commercial pesticide, that is hazardous solely by application of section (5) of rule 340-101-033, is exempt from compliance with Divisions 100 to 106 provided such person complies with the requirements of Division 109.

(4) Exemptions under section (3) of this rule: Any person who produces an unwanted pesticide residue from agricultural pest control (for example, on crops, livestock, Christmas trees, commercial nursery plants or grassland); industrial pest control (for example, in warehouses, grain elevators, tank farms or rail yards); structural pest control (for example, in human dwellings); ornamental and turf pest control (for example, on ornamental trees, shrubs, flowers or turf); forest pest control; recreational pest control (for example, in parks or golf courses); governmental (for example, for clearing a right-of-way, or vector, predator, and aquatic pest control); seed treatment; and pesticide demonstration and research.

(5) A person who generates a hazardous waste as defined by 40 CFR 261.3 must comply with the requirements of this Division. Failure to comply will subject a person to the compliance requirements and penalties prescribed by ORS [459.650]466.185 to [459.690]466.210, 459.992, 466.995, [and], 459.995, 466.880, 466.890, 466.895, 466.900 and OAR Chapter 340, Division 12.

11. Rule 340-102-011 is proposed to be amended as follows:

Hazardous Waste Determination

340-102-011 (1) The provisions of this rule replace the requirements of 40 CFR 262.11.

(2) A person who generates a residue as defined in rule 340-100-010 must determine if that residue is a hazardous waste using the following method:

(a) [He]Persons should first determine if the waste is excluded from regulation under 40 CFR 261.4 or rule 340-101-004.

(b) [He]Persons must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261, excluding application of rule 340-101-033.

(Comment: Even if the waste is listed, the generator still has an opportunity under rule 340-100-022 to demonstrate to the Commission that the waste from his/her particular facility or operation is not a hazardous waste.)

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(c) [If the waste is not listed as a hazardous waste by application of subsection (2)(b) of this rule, he] Regardless of whether a hazardous waste is listed in Subpart D of 40 CFR Part 261, persons must also determine whether the waste is [identified] hazardous under [in] Subpart C of 40 CFR Part 261 by either:

(A) Testing the waste according to the methods set forth in Subpart C of 40 CFR 261, or according to an equivalent method approved by the Department under rule 340-100-021; or

(Comment: In most instances, the Department will not consider approving a test method until it has been approved by EPA.)

(B) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used."

(d) If the waste is determined to be hazardous, the generator must refer to Divisions 100-106 and 40 CFR Part 264, 265 and 268 for possible exclusions or restrictions pertaining to management of his specific waste.

[(d)](e) If the waste is not identified as hazardous by application of subsection (2)(b) and/or (c) of this rule, [he]persons must determine if the waste is listed under rule 340-101-033.

12. Rule 340-102-041 is proposed to be amended as follows:

Quarterly Reporting

340-102-041 (1) The provisions of this rule replace the requirements of 40 CFR 262.41.

(2) A person producing at any time more than one (1) kilogram of acutely hazardous waste, a total of 100 kilograms or more of hazardous waste in a calendar month, or who accumulates on-site at any time more than 1,000 kilograms of hazardous waste, shall submit Quarterly Reports to the Department from that point forward, unless no additional hazardous waste is generated for a period of one year and the person requests in writing that the Department withdraw his/her generator registration. Reports are due within 45 days after the end of each calendar quarter:

(a)(A) The Quarterly Report shall include, but not be limited to the following information:

(i) A copy of the completed manifest or a listing of the information from each manifest for each shipment made during the calendar quarter.

(ii) A listing of all additional hazardous waste generated during the quarter that was sent off-site without a manifest or was used, reused or reclaimed on-site, on a form provided by the Department. The listing shall include, but not be limited to:

(I) The generator's name and address;

(II) The generator's U.S. EPA/DEQ Identification Number;

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(III) Identification of the calendar quarter in which the waste was generated;

(IV) The type and quantity of each waste generated, by EPA code number; and

(V) The disposition of each waste, including the identity of the receiving party for wastes shipped off-site and handling method; and

(iii) If no hazardous waste was generated during the quarter, a statement to that effect, on a form provided by the Department.

(B) The Quarterly Report must be accompanied by the following certification signed and dated by the generator or his/her authorized representative:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(3) Any generator who is required to have a permit for the treatment, storage or disposal of hazardous waste on-site must also submit a report covering those wastes and activities in accordance with the provisions of rule 340-104-075 and of 40 CFR, Part 266.

(4) In addition to the requirements of sections (2) and (3) of this rule, on an annual basis, a person subject to the requirements of section (2) of this rule shall also submit, with the fourth quarter report, the following information:

(a) A description of the efforts undertaken during the calendar year to reduce the volume and toxicity of wastes generated and to recycle wastes, on a form provided by the Department;

(b) A description of the changes in volume and toxicity of wastes actually achieved during the calendar year, in comparison to previous years, to the extent such information is available, on a form provided by the Department.

(Rev. 3/8/91)

13. Rule 340-102-042 is proposed to be added to correct 40 CFR 262.42(b) as follows:

Exception Reporting

340-102-042 The provisions of 40 CFR 262.42 (b) are deleted.

(Adopt. 3/8/91)

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14. Rule 340-102-044 is proposed to be corrected as follows:

Special requirements for Generators of Between 100 and 1000 kg/mo.

340-102-044 The provisions of 40 CFR 262.44 (b) are deleted. (Comment: Small Quantity Generators must comply with the requirements in 40 CFR 262.40(a), (c), (d), OAR 340-102-040, 40 CFR 262.42 for generators of greater than 1000 kg/mo. of hazardous waste, and the requirements in 40 CFR 262.43 (c).

(Rev. 3/8/91)

15. Rule 340-102-070 is proposed to be amended as follows:

Farmers

340-102-070 In addition to the provisions of 40 CFR 262.70, a farmer disposing of waste pesticides from his/her own use which are hazardous wastes shall comply with the requirements of Division 109 of these rules.

(Rev. 3/8/91)

16. Rule 340-104-001 is proposed to be corrected and amended as follows:

Purpose, scope and applicability.

340-104-001 (1) The purpose of this Division is to establish minimum State standards which define the acceptable management of hazardous waste.

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3)(a) The provisions of subsection (3)(b) of this rule replace the requirements of 40 CFR 264.1(d).

(b) The requirements of this Division apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the following extent: 40 CFR 264.11 (identification number), 264.16 (personnel training), 264.71 (manifest system), 264.72 (manifest discrepancies), 264.73(a), (B)(1) and (B)(2) (operating

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record), 264.75 (periodic report), and 264.76 (unmanifested waste report). When abandonment is completed, the owner or operator must submit to the Department certification by the owner or operator and by an independent registered professional engineer that the facility has been closed in a manner that will ensure that plugging and abandonment of the well will not allow the movement of fluids either into an underground source of drinking water or from one underground source of drinking water to another.

(4) The provisions of 40 CFR 264.1(f) are deleted.

(5) In addition to the requirements of 40 CFR 264.1(g)(8)(iii), any person covered by 40 CFR 264.1(g)(iii) shall comply with the applicable requirements of Divisions 100 to 108.

(6) Persons receiving from off-site solid waste which becomes hazardous waste by virtue of federal or state statute or regulation and who treat or dispose of such waste shall comply with the applicable requirements of Divisions 100 to 106, 120, and 40 CFR Parts 264 and 265 and must receive a final permit before managing the waste.

(Adopted 3/8/91)

17. Rule 340-104-004 is proposed to be corrected as follows:

Imminent Hazard Action.

340-104-004 (1) The provisions of section (2) of this rule replace the provisions of 40 CFR 264.4.

(2) Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to ORS [459.650]466.185 to [459.690]466.210.

(Rev. 3/8/90)

18. Rule 340-104-074(2) is proposed to be corrected as follows:

Availability of records.

340-104-074(2) All records, including plans, required under this Division must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the Department as authorized by ORS [459.285]466.185.

19. Rule 340-105-001 is proposed to be corrected as follows:

Purpose, scope and applicability.

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340-105-001 (1) The purpose of this Division is to establish basic permitting requirements, such as application requirements, standard permit conditions, monitoring and reporting requirements, and management requirements for existing facilities which have not been issued a RCRA permit.

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3) The provisions of Section (3) of this rule replace the contents of 40 CFR 270.1(a), 270.1(b) and 270.1(c) prior to paragraph (c)(1).

(4)(a) Technical regulations. The hazardous waste permit program has separate additional regulations that contain technical requirements. These separate regulations are used by the Department to determine what requirements must be placed in permits if they are issued. These separate regulations are located in 40 CFR Part 264 and Division 104 of this Chapter.

(Comment: Although the permit applicant or permittee will interface primarily with the Department as is indicated by these rules, hazardous waste disposal facility permits are technically issued by the Environmental Quality Commission while hazardous waste storage and treatment facility permits are issued by the Department.)

(b) Applicability. The state hazardous waste program requires a permit for the "treatment," "storage" or "disposal" of any "hazardous waste" as identified or listed in Division 101 of this Chapter. The terms "storage," "disposal" and "hazardous waste" are defined in Rule 340-100-010. The term "treatment" is defined in 40 CFR 260.010. Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit, and, for any unit which closes after the effective date of these rules, during any post-closure care period required under 40 CFR 264.117 and during any compliance period specified under 40 CFR 264.96, including any extension of the compliance period under 40 CFR 264.96(c).

20. Rule 340-105-010 is proposed to be amended as follows:

General application requirements and requirements applicable to existing management facilities.

340-105-010 (1) The requirements of Sections (2), (3), (4) and (5) of this rule replace the provisions of 40 CFR 270.10(e) to 270.10(i) regarding application requirements.

(2) Existing management facilities:

(a) Owners and operators of existing hazardous waste management facilities that do not have a permit must submit a Part

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A permit application to the Department within thirty days after the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit. In addition, person receiving from off-site solid waste which by virtue of federal or state statute or regulation becomes hazardous waste and who treat or dispose of such waste shall comply with the applicable requirements in Divisions 100-106, 120, and 40 CFR Parts 264 and 265, and must receive a final permit before managing the waste.

(b) The Department may at any time require the owner or operator of an existing management facility to submit Part B of their permit application. The owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing management facility may voluntarily submit Part B of the application at any time.

(c) An owner or operator that has not submitted an acceptable Part A permit application, or an acceptable Part B permit application when required to do so, or does not operate in compliance with the regulations of 40 CFR Part 265, or Division 120, as required by this rule, shall be subject to Department enforcement action including termination of the facility's operation.

(d) If an owner or operator of an existing management facility has filed a Part A permit application but has not yet filed a Part B permit application, the owner or operator shall file an amended Part A application:

(A) No later than 15 days after the effective date of the adoption of rules listing or designating wastes as hazardous if the facility is treating, storing or disposing of any of those newly listed or designated wastes; or

(B) Prior to any of the following actions at the facility:

(i) Treatment, storage or disposal of a new hazardous waste not previously identified in Part A of the permit application;

(ii) Increases in the design capacity of processes used at a facility. The owner or operator must submit a justification explaining the need for the increase based on the lack of available treatment, storage or disposal capacity at other hazardous waste management facilities, and receive Department approval before making such increase.

(iii) Changes in the processes for the treatment, storage or disposal of hazardous waste. The owner or operator must submit a justification explaining that the change is needed because:

(I) It is necessary to prevent a threat to human health or the environment because of an emergency situation, or

(II) It is necessary to comply with the requirements of Divisions 100 to 108. The owner or operator must receive Department approval before making such change.

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(iv) Changes in the ownership or operational control of a facility. The new owner or operator must submit a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of Subpart H of 40 CFR Part 265 (financial requirements), until the Department has released him in writing. The Department shall not release the old owner or operator until the new owner or operator has demonstrated to the Department that he is complying with that Subpart. All other duties required by these rules are transferred effective immediately upon the date of the change of ownership or operational control of the facility.

(e) In no event shall changes which amount to reconstruction of the facility be made to an existing hazardous waste management facility which has not been issued an effective RCRA permit. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable, entirely new hazardous waste management facility.

(3) New management facilities. (a) No person shall begin physical construction of a new management facility without having submitted Part A and Part B of the permit application, complied with Division 120, and having received a finally effective hazardous waste permit.

(b) An application for a permit for a new management facility (including both Part A and Part B) may be filed with the Department any time after promulgation of those standards in Division 104 applicable to such facility. All applications must be submitted at least 180 days before physical construction is expected to commence.

(4) Reapplication. Any management facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(5) Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under 40 CFR 270.10(d), 270.13, 270.14 through 270.21 for a period of at least 3 years from the date the application is signed.

(6) The requirements of Section (6) are applicable to existing management facilities.

(a) An owner or operator of an existing management facility that has not been issued a management facility permit shall comply with the regulations of 40 CFR Part 265 until final administrative disposition of a permit is made.

(b) After September 1, 1985, and until final administrative disposition of a permit under these rules is made, an owner or operator of a management facility that has received a State-issued

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non-RCRA permit shall comply with the regulations of 40 CFR Part 265 in those instances where a regulation exists and with the conditions of the permit in those instances where a regulation does not exist.

(7) After final administrative disposition of a permit is made, a management facility shall not treat, store or dispose of hazardous waste without a permit issued in accordance with Divisions 100 to 106.

(Rev. 3/8/91)

21. Rule 340-105-012 is proposed to be corrected as follows:

Confidentiality of information.

340-105-012 (1) The provisions of this rule replace the provisions of 40 CFR 270.12.

(2) In accordance with ORS 192.500 and [459.460]466.090(2), any information submitted to the Department pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information," or the equivalent, on each page containing such information. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in ORS 192.500 and [459.460]466.090(2).

(Comment: Any information stamped confidential must be accompanied by an explanation as to why it should be so considered under the criteria of ORS 192.500 and [459.460]466.090(2). The Department believes that very little, if any, information in an application will meet the criteria.)

(3) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

(4) Any information submitted to the Department shall be available to the Environmental Protection Agency upon request. If the information has been submitted under a claim of confidentiality, the Department shall make that claim of confidentiality to the Environmental Protection Agency for the requested information. The federal agency shall treat the information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

(Rev. 3/8/91)

22. Rule 340-105-013 is proposed to be amended as follows:

Contents of Part A of the permit application.

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340-105-013 In addition to the requirements of 40 CFR 270.13, Part A of the permit application shall include applicable requirements of Division 120 and a statement of compatibility with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commissions's Statewide Planning Goals.

23. Rule 340-105-021 is proposed to be amended as follows:

Specific Part B information requirements for landfills.

340-105-021 In addition to the information required by 40 CFR 270.21, the following additional information shall be submitted in a Part B application:

(1) A detailed report with supporting information justifying the need for the landfill as proposed; and

[(2) An explanation of how the requirements of rule 340-104-314 will be complied with after January 1, 1985.]

(Rev. 3/8/91)

24. Rule 340-106-001 is proposed to be corrected as follows:

Purpose and Scope

340-106-001 (1) The purpose of this Division is to establish the procedures for issuing, modifying, revoking and reissuing, or terminating all hazardous waste permits other than hazardous waste emergency permits and hazardous waste permits by rule.

(Comment: Although the permit applicant or permittee will interface primarily with the Department as is indicated by these rules, hazardous waste disposal facility permits are issued by the Environmental Quality Commission while hazardous waste storage and treatment facility permits are issued by the Department.)

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(Comment: 40 CFR Part 124 includes requirements applicable to several programs, including UIC, NPDES, 404, etc. Only the provisions of 40 CFR Part 124 Subpart A which are applicable to hazardous waste or "RCRA" permits are incorporated by reference in rule 340-100-002, as modified by Division 106.

(Rev. 3/8/91)

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25. Rule 340-110-001 is proposed to be amended as follows:

Purpose, Scope and Applicability.

340-110-001 (1) The purpose of this Division is to establish requirements for the storage, treatment, disposal and marking prior to disposal of PCB and PCB items.

(2) These regulations are in addition to and do not preempt any local, state or federal statutes or regulations.

(3) This Division incorporates, by reference, PCB management regulations of the federal program, included in 40 CFR Part 761 as of July 1, 1989 and amendments to 40 CFR Part 761 in 54 FR 52716 of December 21, 1989, into Oregon Administrative Rules. Persons must consult 40 CFR Part 761 in addition to this Division to determine all applicable PCB management requirements. Persons must also consult Division 120 of this chapter for additional siting and permitting requirements for PCB disposal.

26. Rule 340-110-080 is proposed to be amended as follows:

Records and Monitoring.

340-110-080 [(1) The provisions of 40 CFR 761.180(a)(3) are deleted.]

[(2) Data reported to the Department as required by 40 CFR 761.180 shall be in both pounds and kilograms.]

[(3)] (1) The provisions of 40 CFR 761.185 through 761.193 are deleted.

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF CORRECTING AND)	STATEMENT OF NEED FOR
AMENDING CHAPTER 340)	RULEMAKING
DIVISION 100, 101, 102, 104, 105,)	
106, 110)	

STATUTORY AUTHORITY

ORS 466.020 requires the Commission to:

- (1) Adopt rules to establish minimum requirements for the treatment, storage, and disposal of hazardous wastes, minimum requirements for operation, maintenance, monitoring, reporting and supervision of treatment, storage and disposal sites, and requirements and procedures for selection of such sites.
- (2) Classify as hazardous wastes those residues resulting from any process of industry, manufacturing, trade, business or government or from the development or recovery of any natural resources, which may, because of their quantity, concentration, or physical, chemical or infectious characteristics:
 - (a) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
 - (b) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed.

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- (3) Adopt rules pertaining to hearings, filing of reports, submission of plans and the issuance of licenses.
- (4) Adopt rules pertaining to generators, and to the transportation of hazardous waste by air and water.

NEED FOR THE RULES:

The state of Oregon is currently authorized by the federal government to manage the hazardous waste management 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 result in a federally-operated program in the state. The Oregon Legislature and Environmental Quality Commission support state authorization. The Legislature requires the Department and the Commission to take any action necessary to maintain Oregon's authorization.

PRINCIPLE DOCUMENTS RELIED UPON:

New federal hazardous waste management rules published in the Federal Register (FR) and proposed for incorporation by reference are: technical corrections to the Small Quantity Generator regulations, 53 FR 27162, 7/19/88; amendment listing methyl bromide, 54 FR 41402, 9/6/89; amendment listing chlorinated aliphatic wastes, 54 FR 50968, 12/11/89; amendment excluding F019 listing of wastewater treatment sludges from zirconium phosphating in aluminum can washing process, 55 FR 5340, 2/2/90; addition of organic constituents and Toxicity Characteristic Regulation and leaching procedures to characteristic toxicity listing, 55 FR 11798, 3/29/90; notice of renewal of hazardous waste manifest, 53 FR 45089, 11/8/88; extension of Manifest Expiration Date, 54 FR 7036, 2/16/89; amendments to SW-846, corrects 47 testing methods in SW-846, 55 FR 8948, 3/9/90; clarification of standards for owners and operators of management units, 54 FR 615, 1/9/89; standards for incinerators, 54 FR 4286, 1/30/89; amends procedures for post-closure permitting, 54 FR 9596, 3/7/89; corrections to the preamble concerning hazardous waste miscellaneous units, 54 FR 26198, 6/22/89, amends closure period for hazardous waste management facilities, 54 FR 155, 8/14/89; amends testing and monitoring requirements at hazardous waste management systems, 54 FR 40260, 9/29/89; amends double liner and leachate collection system requirements, 55 FR 19262, 5/9/90; corrections, multi-source leachate placed in third-third of schedule prohibiting land disposal, 54 FR 8264, 2/27/89; amends land disposal treatment standards for certain first third wastes, 54 FR 18836, 5/2/89; amends land Disposal restrictions for second

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third wastes, 54 FR 26594, 6/23/89; corrections to the land disposal restrictions, 54 FR 36967, 9/6/89; amends the land disposal restrictions, adds the third-third restrictions and treatment standards, 55 FR 22523, 6/1/90; and amends the management of Polychlorinated Biphenyls (PCBs), notification and manifesting requirements for PCB waste activities, 54 FR 52716, 12/21/89.

In addition, other documents relied upon include OAR Chapter 340, Divisions 100, 101, 102, 104, 105, 106, 110 and 120.

FISCAL AND ECONOMIC IMPACT:

The federal regulations being proposed for adoption pertain to (1) the base RCRA program and (2) regulations promulgated by the U.S. EPA under the Hazardous and Solid Waste Amendments of 1984 (HSWA). The regulations will have a fiscal impact on the regulated community and the agency.

1. Regulations promulgated under HSWA authority are currently in effect in Oregon and are being implemented by EPA. Therefore, there is no new economic impact on the regulated community if the Department adopts these regulations. However, the implementation and enforcement of them by the Department will result in an impact on the Department, in the form of an increase in inspection costs, particularly costs associated with implementing the HSWA Toxicity Characteristic Rules (TCLP) and the Second-Third and Third-Third Land Disposal Restrictions. These new federal regulations require the inspector to spend more time at the facility analyzing its operation, records and hazardous waste streams. One option to cover the increase in costs is to pass the costs on to the regulated community in the form of fees. Another option would be to conduct fewer inspections. Once we determine the true impact of implementing the new regulations, we will determine the best approach.

The remaining federal regulations being proposed for incorporation by reference are corrections and clarifications and should not pose any increase in cost to the regulated community or the Department.

2. The only amendment to the Department's hazardous waste regulations that will have a fiscal impact is the one that eliminates the option of using federal interim status provisions. Under the federal program, treatment or disposal facilities managing or desiring to manage newly designated hazardous wastes from off-site may continue to do so under federal interim status provisions. The requirements of these provisions are minimal, and

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the Department has not adopted them because of the state's land use laws and the Department's siting requirements. Thus, facilities must meet the Department's more stringent requirements before they may operate. That has the effect of accelerating the expenses that, under federal guidelines, would be incurred when moving from interim to permanent permit status. In the short term, the costs of meeting minimal federal interim status provisions are likely to be considerably less than the costs to meet the Department's more substantive permitting and siting standards. Facilities will incur additional costs under the state's program because of not being able to operate and defray siting and permit processing costs until all of the state's standards are met and a permit is issued.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Proposed Adoption of Federal Hazardous Waste and
Polychlorinated Biphenyl Regulations

Hearing Date: January 17, 1991
Comments Due: January 21, 1991

**WHO IS
AFFECTED:**

Persons who generate, store, treat, dispose of hazardous waste and Polychlorinated Biphenyls (PCBs).

**WHAT IS
PROPOSED:**

The Department of Environmental Quality (DEQ) proposes to amend Chapter 340, Divisions 100, 101, 102, 104, 105, 106, and 110 to include federally promulgated regulations and corrections.

**WHAT ARE THE
HIGHLIGHTS:**

- o New regulations concerning land disposal restrictions including the Second-Third and Third-Third of scheduled hazardous wastes.
- o New regulations concerning the Toxicity Characteristic Rule and Toxicity Characteristic Leaching Procedure.
- o Corrections and amendments to federal hazardous waste listing of hazardous wastes.
- o Amendments to DEQ's regulations concerning generator waste characterization procedures.
- o Amendments to DEQ's regulations clarifying permitting and siting requirements for treatment and disposal facilities receiving newly regulated wastes from off-site.

OVER

C-1



811 S.W. 6th Avenue
Portland, OR 97204

11/1/86

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

- o Amendments to DEQ's regulations clarifying Small Quantity Generator exception reporting requirements.
- o Corrections to statutory citations and adoption of PCB notification and manifesting requirements.

HOW TO
COMMENT:

Copies of the proposed rule package may be obtained from the Hazardous and Solid Waste Division, 811 S.W. Sixth Ave., Portland, Oregon 97204. Oral and written comments will be accepted at the public hearing:

9:00 A.M.-5:00 P.M.
Thursday January 17, 1990
DEQ Conference Room 3A (Third Floor)
811 S.W. Sixth Ave.
Portland, Oregon 97204

Written comments should be sent to Gary Calaba, DEQ Hazardous and Solid Waste Division, 811 S.W. Sixth Ave., Portland, Oregon 97204. Comments must be received by 5 P.M., January 21, 1991. For further information, contact Gary Calaba, (503) 229-6534, or toll-free within Oregon, 1-800-452-4011.

WHAT IS THE
NEXT STEP:

After the Public hearing, DEQ will evaluate the comments, prepare a response to the comments and make a recommendation to the Environmental Quality Commission in March 1991. The Commission may adopt the Amendments as proposed, adopt modified amendments as a result of the testimony received, or decline to adopt any amendments.

attachc
gc/gjc

Department Report: Summary
of Proposed Federal and State Rule
Amendments and Corrections

Following is a summary of the federal regulations the Department proposes to adopt:

1. Federal rules identifying and listing hazardous wastes.
 - a. HSWA. Technical corrections to the Small Quantity Generator regulations; 53 FR 27162; 7/19/88.
 - b. RCRA. Amends listing by adding methyl bromide to the lists of hazardous wastes; 54 FR 41402, 9/6/89.
 - c. RCRA. Amends chlorinated aliphatic waste listings; 54 FR 50968, 12/11/89.

This regulation lists as hazardous one generic category of waste generated during the manufacture of chlorinated aliphatic hydrocarbons by free radical catalyzed process having carbon chain lengths ranging from one to five (EPA Hazardous Waste No. F025). Also, this rule clarifies the listing description for F024; adds two toxicants to Appendix VIII; and makes final the designation as hazardous substances under CERCLA all of the wastes made final by this rule, including their reportable quantities.

- d. RCRA. Amends F019 listing to exclude wastewater treatment sludges from zirconium phosphating in aluminum can washing process; 55 FR 5340, 2/2/90.
 - e. HSWA. Toxicity Characteristic Leaching Procedure and Contaminants; replaces the Extraction Procedure Toxicity Test and Contaminants of Concern; 55 FR, 11798, 3/29/90.

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In August, the Department promulgated a temporary rule adopting the 14 Toxicity Characteristic pesticides and heavy metals. This was done to avoid requiring the regulated community to do dual testing using both the Extraction Procedure (EP Toxicity Test) and the new Toxicity Characteristic Leaching Procedure (TCLP) of their wastes to determine hazardous characteristics. The Department proposes to adopt in final form the Toxicity Characteristic Leaching Procedure and all contaminants of concern, including their regulatory levels.

Therefore, the Department proposes to delete the temporary rule, OAR 340-101-024(1).

f. HSWA. Toxicity Characteristic Revisions; 55 FR 26986, 6/29/90.

This rule amends the Toxicity Characteristic rule by clarifying the section on quality assurance, and corrects the rule to ensure consistency of the leaching procedure, Method 1311, with other RCRA testing methods contained in Test Methods for Evaluating Solid Waste, SW-846.

2. Federal rules amending hazardous waste generator requirements.

a. RCRA. Notice of renewal of hazardous waste manifest; 53 FR 45089, 11/8/88.

This rule renews the Uniform Hazardous Waste Manifest form without change and extends the expiration date to September 30, 1991. This action also mandates the burden disclosure statement. The statement must be included with each manifest, either on the form, in the instructions to the form, or accompanying the form. The statement is as follows:

"Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporter, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing their burden, to: Chief, Information policy Branch, PM-223, U.S. Environmental Protection Agency, m 40 M Street SW., Washington, DC., 20460."

b. RCRA. Extension of Manifest Expiration Date; 54 FR 7036, 2/16/89.

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This notice informs all users of a six month extension of mandatory use of the new manifest form and burden disclosure statement from December 31, 1988, through June 30, 1989.

c. RCRA. Amendments to SW-846, corrects 47 testing methods in SW-846; 55 FR 8948, 3/9/90.

This rule corrects 47 testing methods by adding a list of 47 analytical testing methods to the section of the regulations that incorporates these methods by reference, 40 CFR 260.11(a) These new methods are found in the Third Edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Office of Solid Waste Publications SW-846, and its Revision I.

3. Federal rules amending hazardous waste treatment, storage and disposal permitting requirements.

a. RCRA. Standards for owners/operators of new and existing management units; clarification of standards for owners and operators of management units; 54 FR 615, 1/9/89.

This notice clarifies portions of the preamble and corrects several errors in the regulatory language in 40 CFR Part 264 standards regulating the Subpart X requirements for owners and operators of miscellaneous units.

b. RCRA. Standards for incinerators; amends regulatory procedures for obtaining permit for existing incinerators; 54 FR 4286, 1/30/89.

This rule clarifies 40 CFR 270.62(d), which describes procedures for permitting existing hazardous waste incineration facilities. The amendment requires existing incineration co conduct a trial burn or to submit other information as specified in Sec. 270.19(a) or (c) before a permit can be written for that facility.

c. RCRA. Treatment, storage and disposal facilities; amends procedures for post-closure permitting at interim status facilities, 54 FR 9596, 3/7/89.

d. RCRA. Corrections to preamble, corrects preamble concerning hazardous waste miscellaneous units; 54 FR 26198, 6/22/89.

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This correction modifies the preamble discussion pertaining to open burning/open detonation miscellaneous units.

e. RCRA. Hazardous waste management facilities; delay of closure period for hazardous waste management facilities; 54 FR 155, 33376, 8/14/89.

This rule amends portions of 40 CFR Part 264 standards for owners and operators of hazardous wastes treatment, storage and disposal facilities. The rule allows such facilities, under certain circumstances, to remain open after the final receipt of hazardous wastes in order to receive non-hazardous waste in that unit.

f. RCRA. Hazardous waste management systems; amends testing and monitoring requirements at hazardous waste management facilities; 54 FR 40260, 9/29/89.

This rule adopts 47 testing methods for use in meeting regulatory requirements.

g. RCRA. Hazardous waste management facilities; amends double liner and leachate collection system requirements, 5/9/90.

This is a correction to 40 CFR 264.221(c) and 264.301(c) as promulgated July 15, 1985. This correction applies to certain landfill and surface impoundment units for which Part B permit applications were received prior to November 8, 1984. Permits issued to such facilities are not required by federal statute to include double liner requirements and leachate collection systems, but may include such requirements were necessary to protect human health and the environment.

This rule will not affect any Oregon facilities.

4. Federal rules pertaining to the land disposal restrictions.

a. HSWA. Corrections; multi-source leachate placed in third-third of schedule prohibiting land disposal, 54 FR 8264, February 27, 1989.

This correction clarifies that treatment standards for multi-source leachate will be promulgated no later than May 1990. Meanwhile, multi-source leachate may be land disposed.

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b. HSWA. Amends land disposal treatment standards for certain first third wastes; 54 FR 18836, 5/2/89.

This rule amends 40 CFR 268.12 and 268.43, which lists the "no land disposal" requirements for certain first third scheduled wastes. The rule amends the "no land disposal" requirement by allowing disposal of certain first third wastes because there is no legal means of disposal for these wastes at this time.

c. HSWA. Amends land Disposal restrictions for second third wastes; 54 FR 26594; 6/23/89.

This rule implements the congressionally mandated requirement specifying treatment standards, including recycling, for the "second-third" hazardous wastes. The "second-third" hazardous wastes include certain "F", "P", "K" and "U" listed hazardous wastes.

d. HSWA. Corrections to the land disposal restrictions; 54 FR 36967, 9/6/89.

The Department has adopted the Land Disposal Restrictions for solvents, dioxin containing wastes, "California" listed wastes, and the "First" Third. This rule corrects errors and clarifies the language in the preamble and regulations of the "First" Third Land Disposal Restrictions.

e. HSWA. Amends the land disposal restrictions Adding; adds the third-third restrictions and treatment standards; 55 FR 22523, 6/1/90.

The rule amends the land disposal restriction regulations by adding the list of "third-third" hazardous wastes and their treatment standards. Third-third wastes includes wastes from the "D", "K", "U" and "P" lists.

5. Federal rules amending the management of Polychlorinated Biphenyls (PCBs).

a. TSCA. Notification and manifesting requirements for PCB waste activities; 54 FR 52716, 12/21/89.

The Department incorporates by reference PCB requirements included in the federal regulations, 40 CFR Part 761, and proposes to modify its rules to adopt by reference these federal amendments. This amendments require (1) PCB handlers to notify the Department, (2) prepare and carry manifests for

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purposes of tracking the disposal of PCB waste, and (3) requires commercial PCB storage facilities to file closure plans and to demonstrate financial responsibility for the closure of their facility. Also, the rule amends certain recordkeeping requirements.

In reviewing its PCB record and monitoring requirements, the Department finds no compelling reason to retain OAR 340-110-180(1) and (2) and proposes to delete these state only requirements to maintain consistency with the federal PCB program.

Following are corrections and amendments to the Oregon Administrative Rules, OAR 340, Divisions 100, 101, 102, 104, 105, 106, and 110.

1. Corrections and amendments to Oregon rules, OAR 340, Divisions 100, 101, 102, 104, 105, 106, and 110.

a. Corrections

(1). Adoption of United States Environmental Protection Agency Hazardous Waste Regulations. OAR 340-100-002(1). Corrects Department's authorities concerning hazardous waste transportation.

(2). Confidentiality. OAR 340-100-003. Correct 459 citations.

(3). Definitions. OAR 340-100-010(2)(f). Correct "459" citations. .

(4). Definitions. OAR 340-100-010(2)(v). Correct "459" citation. Include reference to Division 120.

(5). References. OAR 340-100-011(2). Include reference to Division 120, correct the Department's address, update reference to incorporated materials.

(6). Purpose and Scope. OAR 340-101-001(2). Include reference to 40 CFR Part 268 regulations.

(7). Purpose, scope, and Applicability. OAR 340-102-010(2) and (5). Include reference to 40 CFR Part 268 regulations and correct "459" citations respectively.

(8). Exception Reporting. OAR 340-102-042. Adds a

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rule clarifying the Department's small quantity generator exception reporting requirements.

(9). Special requirements for generators of between 100 and 1000 kg/mo. OAR 340-102-044. Adds a comment clarifying the Departments Small Quantity Generator requirements, including exception reporting.

(10). Purpose, Scope and Applicability. OAR 340-104-001(2). Include reference to 40 CFR Part 268 requirements.

(11). Imminent hazard action. OAR 340-104-004(2). Correct "459" citations.

(12). Availability of records. OAR 340-104-074(2). Correct "459" citation.

(13). Purpose, scope and applicability. OAR 340-105-001(2). Include reference to 40 CFR 268 requirements.

(14). Confidentiality of information. OAR 340-105-012(2) and the comments section. Correct the "459" citations.

(15). Purpose and scope. OAR 340-106-001(2). Include reference to 40 CFR Part 268 requirements.

b. Amendments.

(1). Purpose and scope. OAR 340-100-001(1). Amend by inserting wording concerning the Department's toxic use reduction legislative and regulatory commitments; and include references to 40 CFR Part 268 and Division 120 siting regulations.

(2). Adoption of U.S. EPA regulations. OAR 340-100-002(1). Describes the Department's federal regulatory status by amending the regulation to include the adoption by reference of all federal regulations not previously adopted by the Department. (See list of federal regulations being proposed for adoption through July 1 1990).

(3). Table of contents. OAR 340-100-004. In table of contents, deletes reference to air or water transportation standards in Division 103; and adds Division 120 subject and title.

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(4). Toxicity characteristic. OAR 340-101-024(1). The Department proposes to delete the regulation. The Department adopts the final toxicity characteristic regulation by reference in 340-100-002(1). Also, the June 29, 1990 corrections to the TC rule are adopted in 340-100-002(1) by reference.

OAR 340-101-024(2) requires facilities to obtain a permit prior to managing a state or federal TC waste from off-site. The issue of off-site management of newly regulated hazardous wastes is addressed in Division 105, below. Therefore, OAR 340-102-024(2) is proposed for deletion.

(5). Additional hazardous waste. OAR 340-101-033(3)(c). Adds wording requiring the letters "OR" be placed before the hazardous waste codes listed in 40 CFR 261.33 (e) and (f) for Oregon only hazardous waste. This will prevent confusing DEQ only wastes with the federal 261.33 (e) and (f) wastes which must meet 40 CFR Part 268 land disposal restriction requirements.

Also, a new paragraph, OAR 340-101-033(7), is being added to preclude Department only hazardous waste from having to meet the federal land disposal restrictions. The Department intends to address whether or not such waste should be subject to those restrictions.

(6). Purpose, Scope and Applicability. OAR 340-102-010(5). Adds additional statutory citations dealing with the Department's civil and criminal penalty authorities.

(7). Generator requirements. Hazardous waste determination. OAR 340-102-011(2)(a), (b), (c) and (e). Amends rule by replacing "he" with "persons."

OAR 340-102-011(c) is being amended to require generators to completely characterize wastes regardless of whether or not they are listed. Previous federal and state requirements allowed the characterization process to stop if a waste was listed. This new requirement is found in the federal Third-Third regulations, which the Department's adopting.

OAR 340-102-011(d) adds the federal requirement for generators to refer to 40 CFR Parts 264, 265, 268 for exclusions or restrictions pertaining to management of

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hazardous wastes. The Department neglected to adopt these requirements when it adopted the land disposal restrictions in 40 CFR Part 268 in 1989.

(8). Generator requirements. Quarterly reporting. OAR 340-102-041 (2)(a)(B). Amends wording to include feminine gender.

(9). Farmers. OAR 340-102-070. Amends wording to include feminine gender.

(10). Purpose, scope and applicability. Treatment, storage and disposal facility hazardous waste management standards. OAR 340-104-001(6). A new rule requiring treatment or disposal facilities receiving from off-site newly regulated federal or state hazardous wastes to meet all Department permitting requirements, including Division 120 siting standards, and receive a final permit before managing those wastes.

(11). General application requirements and requirements applicable to existing management facilities. OAR 340-105-010(2)(a). New wording requiring owners and operators receiving from off-site newly regulated state or federal hazardous wastes to comply with all Department hazardous waste regulations, including Division 120 siting standards, and to receive a final permit before managing those wastes.

OAR 340-105-010(2)(c). Clarifies siting compliance requirements by incorporating Division 120 siting requirements.

340-105-010(3). Adds wording clarifying that new management facilities must comply with Division 120 siting requirements.

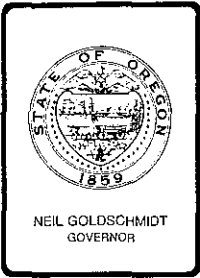
(12). Contents of Part A of the Permit Application. OAR 340-105-013. Amended to require that the applicable Division 120 requirements be included in a Part A permit application.

(13). Specific Part B information requirements for landfills. OAR 340-105-021(2). Deleted. The Department deleted OAR 340-104-314 requirements in a previous rulemaking and neglected to delete this reference to that rule at that time.

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(14). Polychlorinated Biphenyls (PCBs). OAR 340-110-001(3). Amends the regulation by specifying the promulgation date of the 40 CFR Part 761 PCB regulations the Department has adopted, in this case the regulations as of July 1, 1989. Also, the Department intends to adopt by reference the December 21, 1989 amendments to the federal regulations. The amendments include requirements for PCB handlers to notify and manifest PCB wastes.

OAR 340-110-080(1) and (2) are proposed for deletion since there is no reason to require PCBs to be reported in both pounds and kilograms. Also, the Department finds no compelling reason to retain OAR 340-110-060(1), since the December 21, 1989 amendments modify the recordkeeping requirements the Department deleted initially.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: December 14, 1990
Agenda Item: D
Division: Air Quality
Section: Planning & Development

SUBJECT:

Authorization for Rulemaking Hearing on Requirements for Stage II Vapor Recovery at Gasoline Stations.

PURPOSE:

To provide a cost-effective means of helping to attain and maintain compliance with ozone air quality standards while accommodating growth and development.

ACTION REQUESTED:

- Authorize Rulemaking Hearing
 Adopt Rules

Proposed Rules	Attachment <u>A</u>
Rulemaking Statements	Attachment <u>B</u>
Fiscal and Economic Impact Statement	Attachment <u>C</u>
Public Notice	Attachment <u>D</u>

DESCRIPTION OF REQUESTED ACTION:

This report requests authorization to hold a public hearing on proposed requirements for Stage II vapor recovery (control of motor vehicle refueling vapors) at gasoline stations.

The proposed rules would require the installation of Stage II vapor recovery equipment over the next one to three years, depending on the gasoline throughput volume of the station. Larger stations would be affected first and smaller stations later within the three-year period.

The proposal would ultimately affect gasoline stations with an annual gasoline throughput of 600,000 gallons or more (i.e., monthly average throughput of 50,000 gallons or more) in Clackamas, Multnomah and Washington Counties.

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In addition, gasoline stations in these counties that have not already installed Stage I vapor recovery systems (control of vapors from tanker truck to service station storage tank) would be required to do so within the same schedule; gasoline stations within the Portland-Vancouver Air Quality Maintenance Area (which includes most of the stations in the three counties) were previously required to implement Stage I by April 1981.

AUTHORITY/NEED FOR ACTION:

<u> </u> Required by Statute: _____	Attachment <u> </u>
Enactment Date: _____	
<u> X </u> Statutory Authority: <u>ORS 468.295</u>	Attachment <u> E </u>
<u> </u> Pursuant to Rule: _____	Attachment <u> </u>
<u> </u> Pursuant to Federal Law/Rule: _____	Attachment <u> </u>

 X Time Constraints:

Most of the Underground Storage Tank (UST) compliance work will be completed by October 1991. By including the underground piping for Stage II vapor recovery at the same time as UST compliance work, it is expected that the overall cost of the two actions will be reduced.

The Portland-Vancouver area continues to violate the air quality health standards for ozone. Timely implementation of Stage II vapor recovery is one of the most cost-effective pollution control actions available to address this problem.

DEVELOPMENTAL BACKGROUND:

 X Advisory Committee Report/Recommendation Attachment F
(Incorporated within 09/20/90 EQC Work Session report)

 X Prior EQC Agenda Items:

11/30/89 EQC Work Session	
01/18/90 EQC Work Session	
05/25/90 EQC Meeting	
09/20/90 EQC Work Session	Attachment <u> F </u>

Initially, the Stage II Technical Advisory Committee and Department of Environmental Quality (DEQ) staff proposed that the underground piping portion of Stage II vapor recovery be coordinated with UST compliance work and be completed within 24 months for gasoline stations with monthly gasoline throughput of 10,000 gallons or more per month within Clackamas, Multnomah and Washington Counties. The

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Environmental Quality Commission (EQC) authorized a July 18, 1990, public hearing on that proposal.

As a result of public hearing criticism, ozone violations during July and August, and Clean Air Act clarifications on airshed growth cushions, the Department recommended that we bypass the intermediate step of requiring underground piping and consider full implementation of Stage II.

Department staff met with the Stage II Technical Advisory Committee on August 29, 1990, to discuss boundaries, gallons per month (gal/mo) exemption cutpoints, and schedules for full implementation of Stage II vapor recovery.

The Committee generally favored phase-in of Stage II systems over a time period of three or more years, with Stage II systems required on largest stations first and smaller stations later.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The Department's current proposal would affect gasoline stations with an annual gasoline throughput of 600,000 gallons or more (i.e., monthly average throughput of 50,000 gallons or more) in Clackamas, Multnomah and Washington Counties.

The proposed rules would require both the underground piping and the above-ground equipment for Stage II vapor recovery systems. The total capital cost is estimated to be \$10,000 to \$28,000 for a typical 12-nozzle station. The cost would generally be in the lower part of this range if the underground piping was coordinated with UST compliance work.

Gasoline stations within the Portland-Vancouver Air Quality Maintenance Area (AQMA) were required to install Stage I by April 1981. The proposed rules would require Stage I for gasoline stations outside the AQMA but within the three-county area. The capital costs for Stage I vapor control systems are estimated at \$1000 to \$2000 per typical gasoline station.

The Stage II vapor recovery requirements are not required by the Clean Air Act of 1990 and are not proposed as part of the State Implementation Plan; this approach allows the state to use Stage II emission reductions for growth cushion as needs arise, as well as for attainment and maintenance of ozone standards.

Additional cost information is included in the Fiscal and Economic Impact Statement (Attachment C).

PROGRAM CONSIDERATIONS:

Costs to the Department would fall into five categories:

- o Registration of equipment to be regulated;
- o Review and/or inspection of installation;
- o Education of the regulated community;
- o Periodic inspection and/or performance testing;
- o Enforcement and followup inspections.

A stand-alone Stage II Vapor Recovery program operated independently by the Air Quality Division in the Portland metropolitan area would require two full-time-equivalent (FTE) positions and an annual budget of \$125,000. Substantial cost savings are possible (as much as 50%) if a cooperative approach is taken with existing programs in the Department of Agriculture Weights & Measures Division (which already inspects metering systems on all retail gasoline pumps), DEQ Underground Storage Tank Program (which already regulates underground gasoline tank installations), and DEQ Regional Operations (which already does inspections and enforcement on many pollution sources).

EPA has agreed to provide the funding for initial training of installers and inspectors. The Department will work with the other involved parties to determine the appropriate funding mechanism (federal funds or permit fees) for the ongoing compliance program.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

The Stage II Technical Advisory Committee was divided between two implementation alternatives. Environmental representatives generally favored the first alternative; industry representatives generally favored the second; both alternatives are listed below. After gathering additional information on contractor availability and gasoline throughput distribution, the Department proposes a third alternative. This alternative is somewhat of a compromise between the first two alternatives and better meets the guiding principles (discussed at the September EQC work session) for the program.

First Alternative

<u>Throughput</u>	<u>Date</u>	<u>Boundaries</u>
200,000 gal/mo	12/31/91	Multnomah, Washington, Clackamas, Yamhill, Lane and Jackson Counties
100,000 gal/mo	12/31/92	" " " " " "
40,000 gal/mo	12/31/93	" " " " " "
40,000 gal/mo	12/31/94	Rest of Willamette Valley
40,000 gal/mo	12/31/95	Statewide

Second Alternative

<u>Throughput</u>	<u>Date</u>	<u>Boundaries</u>
250,000 gal/mo	12/31/91	Multnomah, Washington and Clackamas Counties
150,000 gal/mo	12/31/92	" " "
75,000 gal/mo	12/31/93	" " "
50,000 gal/mo	12/31/94	" " "

Third Alternative

<u>Throughput</u>	<u>Date</u>	<u>Boundaries</u>
150,000 gal/mo	12/31/91	Multnomah, Washington and Clackamas Counties
90,000 gal/mo	12/31/92	" " "
50,000 gal/mo	12/31/93	" " "

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends the third alternative. This alternative is consistent with the five guiding principles that the Department recommended to the Commission at the September 20, 1990, EQC Work Session:

1. The three Portland-area counties should be addressed first since they are within the ozone nonattainment area and subject to airshed barriers to growth and development (with other areas considered later after further evaluation);
2. The exemption cutpoints and schedules should affect a substantial portion of the regional gasoline throughput during the first and second years of the Stage II program in order to provide airshed room for growth and development;

3. The exemption cutpoints and schedules should affect larger stations first and smaller stations later;
4. The exemption cutpoints and schedules should affect a relatively constant number of stations each year to insure orderly implementation within the ability of qualified contractors; and
5. Stage II implementation in the Portland area should be essentially completed by the end of 1993 (deadline for ozone attainment in 1990 Clean Air Act for marginal ozone nonattainment area) to insure ozone compliance and accommodate potentially explosive growth of population, traffic and businesses.

The Stage II Technical Advisory Committee was divided between the first and second implementation alternatives. The Committee's recommendations for extended schedules were apparently based on: (1) concerns that enough qualified installers were not available to do the work within a shorter time period; and (2) expectations that the gasoline throughput from the largest stations (200,000 gal/mo or larger) represented a significant portion of the total gasoline throughput. The Department indicated at the September 20, 1990, EQC Work Session that staff would gather additional information on both of these issues (i.e., the availability of qualified contractors and the size distribution of gasoline stations) prior to recommending a specific proposal to the Commission.

The Department contacted qualified contractors in order to assess the impact of Stage II vapor recovery requirements on their workload. Stage II on gasoline stations in the Portland area would represent a minor portion (estimated 8-12%) of their total workload on underground storage tanks (total workload for all tanks, not just gasoline stations) over the next three years. The contractors indicated that it was feasible to increase their work force by 50-100% over a two-year period if necessary to handle an increased workload.

In September 1990, the Department initiated the registration of gasoline stations in Clackamas, Multnomah and Washington Counties in order to obtain more complete information on gasoline throughput by station. The results of this registration were:

- o About 91% of the gasoline throughput occurred in the larger 62% of the gasoline stations that had a monthly throughput of more than 50,000 gallons per month.

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- o Of the stations larger than 50,000 gallons per month, about one-third were larger than 150,000 gallons per month (16% of the total stations), another third were between 90,000 and 150,000 gallons per month (23% of the total stations), and the other third were between 50,000 and 90,000 gallons per month (23% of total stations).
- o Gasoline stations larger than 150,000 gallons per month accounted for 39% of the total gasoline throughput, stations between 90,000 and 150,000 gallons per month accounted for an additional 33% of the total throughput, and stations between 50,000 and 90,000 accounted for an additional 19% of the throughput.

Based on the five guiding principles discussed at the September 20, 1990, EQC Work Session, and additional information on qualified contractors and the size distribution of gasoline stations, the Department recommends the third alternative.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed rules are consistent with Goals 3 and 8 of the Strategic Plan. The Department is not aware of any conflicts with agency or legislative policy.

ISSUES FOR COMMISSION TO RESOLVE:

Should the Commission propose an alternative which is slightly different than either the alternative favored by environmental representatives of the advisory committee or that favored by industry representatives?

INTENDED FOLLOWUP ACTIONS:

1. Hold public hearing in February 1991.
2. Summarize public testimony, respond to issues, revise proposed rules as necessary, and recommend adoption of revised rules to Commission at April 1991 EQC meeting.
3. Coordinate proposed Stage II program with DEQ Underground Storage Tank program and Department of Agriculture, Weights and Measures Division, and DEQ Regional Operations, and determine the funding mechanism for compliance program.

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4. Evaluate other areas of Oregon for implementation of Stage II vapor recovery as part of an air toxics control strategy, and report back to the Commission in approximately one year as discussed at the September 20, 1990, EQC work session.

Approved:

Section:

John F. Kawalyz

Division:

Low Buphan

Director:

Bill Hansen

Report Prepared By: Merlyn Hough
Phone: 229-6446
Date Prepared: November 14, 1990

MLH:a
PLAN\AH11277
(11/21/90)

Gasoline Vapors from Gasoline Transfer and Dispensing Operations

Purpose

340-22-400 (1) Gasoline vapors contribute to the formation of ozone. These rules require the control of gasoline vapors from gasoline transfer and dispensing operations.

(2) These rules apply to gasoline dispensing sites located within Clackamas, Multnomah and Washington Counties.

Definitions

340-22-402 As used in these rules, unless otherwise required by context: (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 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.

(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 system" 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.

General Provisions

340-22-404 (1) No person shall transfer or allow the transfer of gasoline into storage tanks, at gasoline-dispensing sites located in Clackamas, Multnomah 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 onsite 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.

(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.

Compliance Schedules

340-22-406 (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 December 31, 1991;

(b) for gasoline-dispensing sites whose annual throughput exceeds 1,080,000 gallons, by no later than December 31, 1992;

(c) for gasoline-dispensing sites whose annual throughput exceeds 600,000 gallons, by no later than December 31, 1993; or

(d) at the time the gasoline-dispensing site is substantially modified after the effective date of this rule; whichever is sooner.

MLH:a
PLAN\AH11279
11/26/90

**RULEMAKING STATEMENTS FOR PROPOSED AMENDMENTS TO RULES
FOR CONTROL OF GASOLINE VAPORS FROM GASOLINE DISPENSING STATIONS**

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the intended action to amend a rule.

(1) Legal Authority

This proposal amends Oregon Administrative Rules (OAR) 340, Division 22. It is proposed under authority of Oregon Revised Statutes (ORS) Chapter 468.

(2) Need for these Rules

Gasoline vapors contribute to ozone air pollution. The Portland-Vancouver Air Quality Maintenance Area continues to violate the ozone health standard (1988-90 ozone data). Additional reductions are needed in the hydrocarbon vapors (gasoline vapors and other hydrocarbon vapors) that contribute to ozone air pollution in order to prevent future violations of air quality standards and to provide airshed capacity for growth. The control of gasoline vapors at gasoline dispensing sites is one of the most cost-effective approaches for reducing ozone-causing emissions.

(3) Principal Documents Relied Upon

Evaluation of Air Pollution Regulatory Strategies for Gasoline Marketing Industry, U.S. Environmental Protection Agency, EPA-450/3-84-012a, July 1984.

Report to the Oregon Environmental Quality Commission by the Technical Advisory Committee on Stage I/II Vapor Recovery, November 8, 1989.

Staff Report to the Environmental Quality Commission, November 30, 1989, Work Session, Agenda Item No. 1.

Staff Report to the Environmental Quality Commission, January 18, 1990, Work Session, Agenda Item No. 2.

Staff Report to the Environmental Quality Commission, May 25, 1990, EQC Meeting, Agenda Item No. A-3(a).

Staff Report to the Environmental Quality Commission, September 20, 1990, Work Session.

All documents referenced may be inspected at the Department of Environmental Quality, 811 SW 6th Avenue, Portland, Oregon, during normal business hours.

LAND USE CONSISTENCY STATEMENT

The proposed rule changes appear to affect land use as defined in the Department's coordination program with DLCD, but appear to be consistent with the Statewide Planning Goals.

With regard to Goal 6, (air, water, and land resources quality), the proposed changes are designed to enhance and preserve air quality in the State and are considered consistent with the goal. The proposed rule changes do not appear to conflict with the other Goals.

Public comment on any land use issue involved is welcome and may be submitted in the same fashion as indicated for other testimony on these rules.

It is requested that local, state, and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning Goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any appropriate conflicts brought to our attention by local, state, or federal authorities.

MLH:a
PLAN\AH11280

FISCAL AND ECONOMIC IMPACT STATEMENT
FOR PROPOSED AMENDMENTS TO RULES FOR CONTROL OF GASOLINE VAPORS
FROM GASOLINE DISPENSING STATIONS

PROPOSAL SUMMARY

The proposed rules would:

- o Require Stage II vapor recovery (control of motor vehicle refueling vapors) at gasoline stations.
- o Require the installation of Stage II vapor collection systems by no later than December 31, 1993 (earlier for larger volume stations) or at the time of compliance with Underground Storage Tank requirements, whichever occurs sooner.
- o Affect gasoline stations with an annual gasoline throughput of 600,000 gallons or more (i.e., monthly average throughput of 50,000 gallons or more) in Clackamas, Multnomah and Washington Counties.

In addition, gasoline stations with an annual gasoline throughput of 120,000 gallons or more in these counties that have not already installed Stage I vapor recovery systems (control of tanker truck to storage tank vapors) would be required to do so within the same schedule; gasoline stations within the Portland-Vancouver Air Quality Maintenance Area (which includes most of the stations in the three counties) were previously required to implement Stage I by April 1981.

COSTS TO GASOLINE STATION OWNERS

The proposed rules would require both the underground piping and the above-ground equipment for Stage II vapor recovery systems. The underground piping cost would be substantially lower if done at the time of Underground Storage Tank compliance work than if done separately.

The capital costs for the underground piping at a typical 12-nozzle gasoline station are estimated to be as low as \$2,000 for straightforward piping installations coordinated with UST compliance work, or as high as \$18,000 or more for more difficult piping installations not coordinated with UST compliance work. The capital costs for the above-ground equipment are about \$700 to \$800 per nozzle, or \$8,000 to \$10,000 per 12-nozzle gasoline station. Therefore, the total capital cost is estimated to be \$10,000 to \$28,000 for a typical 12-nozzle station.

The capital costs are expected to be in the lower part of this range if the underground piping is installed at the time of underground tank replacement. Financial assistance is available from the state to partially defray these costs through pollution control tax credits and Underground Storage Tank loan guarantees and interest rate subsidies.

The overall costs for Stage II are estimated to be in the range of \$600 to \$2000 per ton of hydrocarbon vapor reduction based on 10% interest rate and 15-year equipment life. These costs are less expensive than new controls on industrial sources (estimated \$5,300 to \$6,600 per ton reduction).

The capital costs for Stage I vapor control systems are estimated at \$300 to \$700 per underground storage tank or \$1000 to \$2000 per gasoline station. Gasoline stations within the Portland-Vancouver Air Quality Maintenance Area (AQMA) were required to install Stage I by April 1981. The proposed rules would require Stage I for gasoline stations outside the AQMA but within the three-county area.

These Stage I costs (\$1000 to \$2000 per typical station) and Stage II costs (\$10,000 to \$28,000 per typical station) compare to an estimated \$100,000 to \$180,000 to replace underground storage tanks at a three or four tank station.

New gasoline stations are usually designed for high throughput and frequently have 28 nozzles, four tanks, about 3/4 acre of land, and cost about \$1 million. The additional cost of Stage I and II vapor recovery equipment on such a new station at the time of construction is estimated at \$23,000 to \$27,000, or 2-3% of the total capital cost of the new station.

COSTS TO THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Costs to the Department would fall into five categories:

- o Registration of equipment to be regulated;
- o Review and/or inspection of installation;
- o Education of the regulated community;
- o Periodic inspection and/or performance testing;
- o Enforcement and follow up inspections.

A stand-alone Stage II Vapor Recovery program operated independently by the Air Quality Division in the Portland metropolitan area would require 2 full-time-equivalent (FTE) positions and an annual budget of \$125,000.

Substantial cost savings are possible (as much as 50%) if a cooperative approach is taken. This approach would make use of existing programs in the Department of Agriculture Weights & Measures Division (which already inspects metering systems on all retail gasoline pumps), DEQ Underground Storage Tank Program (which already regulates and inspects some underground gasoline

tank installations), and DEQ Regional Operations (which already does inspections and enforcement on many pollution sources). It is expected that the incremental costs associated with an increased work load on these programs would be substantially less than the cost of creating a new program from scratch. The Department intends to pursue the cooperative approach and negotiate the necessary agreements.

Start-up costs could be minimized by phasing in the program over a few years. A program could be started almost immediately by requiring that underground Stage II equipment be installed whenever new tanks are installed (administered by the Underground Storage Tank program). Routine inspection of Stage II equipment would not be required until the time of installation of above-ground Stage II equipment.

The U.S. Environmental Protection Agency (EPA) has agreed to provide the funding for initial training of installers and inspectors. The Department will work with the other involved parties to determine the appropriate funding mechanism (federal funds or permit fees) for the ongoing compliance program.

MLH:a
PLAN\AH11278
(11/27/90)

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

**CONTROL OF VAPORS FROM GASOLINE DISPENSING STATIONS
NOTICE OF PUBLIC HEARING**

Hearing Date: February 20, 1991

Comments Due: February 25, 1991

- WHO IS AFFECTED:** Gasoline dispensing stations in Clackamas, Multnomah and Washington Counties.
- WHAT IS PROPOSED:** The Department of Environmental Quality is proposing to amend OAR 340, Division 22.
- WHAT ARE THE HIGHLIGHTS:**
- 1) Gasoline vapors contribute to the formation of ozone air pollution. The proposed rules address the control of gasoline vapors at gasoline dispensing stations.
 - 2) Gasoline station owners would be required to install Stage I vapor recovery systems (if they have not already done so) and Stage II vapor recovery systems.
 - 3) The vapor control changes would need to be done by no later than December 31, 1993 (earlier for larger volume stations) or at the time of Underground Storage Tank (UST) compliance work, whichever occurs sooner.
- HOW TO COMMENT:** Copies of the complete proposed rule package may be obtained from: Air Quality Division, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, OR 97204 or the regional office nearest you. For further information contact Merlyn Hough at (503) 229-6446.

A public hearing will be held before a hearings officer at:

1:30 p.m.
February 20, 1991
Department of Environmental Quality
Conference Room 3A
811 SW Sixth Avenue
Portland, OR 97204

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ, but must be received by no later than February 25, 1991.



811 S.W. 6th Avenue
Portland, OR 97204

11/1/86

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

D-1

**WHAT IS THE
NEXT STEP:**

After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U.S. Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come in April 1991 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

MLH:a
PLAN\AH11281

468.300

PUBLIC HEALTH AND SAFETY

(2) In determining air purity standards, the commission shall consider the following factors:

(a) The quality or characteristics of air contaminants or the duration of their presence in the atmosphere which may cause air pollution in the particular area of the state;

(b) Existing physical conditions and topography;

(c) Prevailing wind directions and velocities;

(d) Temperatures and temperature inversion periods, humidity, and other atmospheric conditions;

(e) Possible chemical reactions between air contaminants or between such air contaminants and air gases, moisture or sunlight;

(f) The predominant character of development of the area of the state, such as residential, highly developed industrial area, commercial or other characteristics;

(g) Availability of air-cleaning devices;

(h) Economic feasibility of air-cleaning devices;

(i) Effect on normal human health of particular air contaminants;

(j) Effect on efficiency of industrial operation resulting from use of air-cleaning devices;

(k) Extent of danger to property in the area reasonably to be expected from any particular air contaminants;

(L) Interference with reasonable enjoyment of life by persons in the area which can reasonably be expected to be affected by the air contaminants;

(m) The volume of air contaminants emitted from a particular class of air contamination source;

(n) The economic and industrial development of the state and continuance of public enjoyment of the state's natural resources; and

(o) Other factors which the commission may find applicable.

(3) The commission may establish air quality standards including emission standards for the entire state or an area of the state. The standards shall set forth the maximum amount of air pollution permissible in various categories of air contaminants and may differentiate between different areas of the state, different air contaminants and different air contamination sources or classes thereof. [Formerly 449.785]

468.300 When liability for violation not applicable. The several liabilities which may be imposed pursuant to ORS 448.305, 454.010

to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter upon persons violating the provisions of any rule, standard or order of the commission pertaining to air pollution shall not be so construed as to include any violation which was caused by an act of God, war, strife, riot or other condition as to which any negligence or wilful misconduct on the part of such person was not the proximate cause. [Formerly 449.825]

468.305 General comprehensive plan. Subject to policy direction by the commission, the department shall prepare and develop a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of new air pollution in any area of the state in which air pollution is found already existing or in danger of existing. The plan shall recognize varying requirements for different areas of the state. [Formerly 449.762]

468.310 Permits. By rule the commission may require permits for air contamination sources classified by type of air contaminants, by type of air contamination source or by area of the state. The permits shall be issued as provided in ORS 468.065. [Formerly 449.727]

468.315 Activities prohibited without permit; limit on activities with permit. (1) Without first obtaining a permit pursuant to ORS 468.065, no person shall:

(a) Discharge, emit or allow to be discharged or emitted any air contaminant for which a permit is required under ORS 468.310 into the outdoor atmosphere from any air contamination source.

(b) Construct, install, establish, develop, modify, enlarge or operate any air contamination source for which a permit is required under ORS 468.310.

(2) No person shall increase in volume or strength discharges or emissions from any air contamination source for which a permit is required under ORS 468.310 in excess of the permissive discharges or emission specified under an existing permit. [Formerly 449.731]

468.320 Classification of air contamination sources; registration and reporting of sources. (1) By rule the commission may classify air contamination sources according to levels and types of emissions and other characteristics which cause or tend to cause or contribute to air pollution and may require registration or reporting or both for any such class or classes.

(2) Any person in control of an air contamination source of any class for which registration and reporting is required under subsection (1) of this section shall register

more air contaminants which contribute to a condition of air pollution.

(4) "Air contamination source" means any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes.

(5) "Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby.

(6) "Area of the state" means any city or county or portion thereof or other geographical area of the state as may be designated by the commission.

(7) "Woodstove" means a wood fired appliance with a closed fire chamber which maintains an air-to-fuel ratio of less than 30 during the burning of 90 percent or more of the fuel mass consumed in the low firing cycle. The low firing cycle means less than or equal to 25 percent of the maximum burn rate achieved with doors closed or the minimum burn achievable. [Formerly 449.760; 1983 c.333 §1]

468.280 Policy. (1) In the interest of the public health and welfare of the people, it is declared to be the public policy of the State of Oregon:

(a) 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.

(b) To provide for a coordinated state-wide program of air quality control and to allocate between the state and the units of local government responsibility for such control.

(c) To facilitate cooperation among units of local government in establishing and supporting air quality control programs.

(2) The program for the control of air pollution in this state shall be undertaken in a progressive manner, and each of its successive objectives shall be sought to be accomplished by cooperation and conciliation among all the parties concerned. [Formerly 449.765]

468.285 Purpose. It is the purpose of the air pollution laws contained in ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter to safeguard the air resources of the state by controlling, abating and preventing air pollution under a program which shall be consistent with the declaration of policy in this section and with ORS 468.280. [Formerly 449.770]

468.290 Application of air pollution laws. Except as provided in this section and in ORS 468.450, 476.380 and 478.960, the air pollution laws contained in this chapter do not apply to:

(1) Agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, except field burning which shall be subject to regulation pursuant to ORS 468.140, 468.150, 468.455 to 468.480 and this section;

(2) Use of equipment in agricultural operations in the growth of crops or the raising of fowls or animals, except field burning which shall be subject to regulation pursuant to ORS 468.140, 468.150, 468.455 to 468.480 and this section;

(3) 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 which shall be subject to regulation under this section and ORS 468.630 to 468.655;

(6) 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 instruction of employees in the methods of fire fighting, which in the opinion of the agency is necessary;

(7) 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; or

(8) The propagation and raising of nursery stock, except boilers used in connection with the propagation and raising of nursery stock. [Formerly 449.775; 1975 c.539 §3; 1983 c.333 §2; 1983 c.730 §3]

468.295 Air purity standards; air quality standards. (1) By rule the commission may establish areas of the state and prescribe the degree of air pollution or air contamination that may be permitted therein, as air purity standards for such areas.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

DATE: September 5, 1990

TO: Environmental Quality Commission

FROM: Fred Hansen

SUBJECT: September 20, 1990, Work Session
Stage II Vapor Recovery at Gasoline Stations

Overview

Stage II vapor recovery (collection of vehicle refueling vapors) at gasoline stations is the most significant and cost-effective control measure available to the Department of Environmental Quality (Department) to insure attainment and maintenance of the ozone standard and provide for growth and development in the Portland area. In order to evaluate Stage II alternatives, the Department formed the Stage II Technical Advisory Committee (Committee) in May 1989 with representatives from various industry, government and environmental groups.

In November 1989, the Department and the Stage II Technical Advisory Committee recommended that Stage II underground piping requirements be required over a 24-month period and coordinated with Underground Storage Tank (UST) compliance work as the first step in implementing Stage II vapor recovery. Above-ground Stage II work was recommended to be delayed until the new Clean Air Act clarified the availability of Stage II reductions for use as a growth cushion. The Environmental Quality Commission (EQC, Commission) discussed Stage II at the November 1989 and January 1990 EQC work sessions and authorized a public hearing for July 1990.

Testimony at the public hearing and other recent developments (continued ozone violations, tighter new federal gasoline volatility limits, federal Clean Air Act bills passing the House and Senate) have caused the Department to reconsider the implementation approach for Stage II vapor recovery. We believe it is now appropriate to bypass the intermediate step of requiring underground piping and consider full implementation of Stage II and would like to discuss this with you at the September work session.

Recent Developments

- o Ozone levels in the Portland-Vancouver area this summer violated the ozone standard and clearly keeps the area classified as nonattainment.

- o The U.S. Environmental Protection Agency (EPA) adopted Phase II gasoline refinery requirements that tighten limits on summer gasoline volatility (the tendency of the gasoline to vaporize into the atmosphere) effective in 1992. The volatility limits for Oregon are tighter than originally expected.
- o The House and Senate have adopted Clean Air Act versions and the bills are now in Conference Committee. It now appears clear that the Clean Air Act language would not require Stage II or affect the use of Stage II credits for growth cushion in the Portland-Vancouver area.

Future Ozone Projections

An estimate of the effects of the various gasoline vapor controls on future Portland area ozone-precursor emissions (non-methane hydrocarbons or NMHC) can be made using EPA generated national information applicable to the Portland area.

- o Figure 1 shows that refueling vapors are significantly controlled by either Stage II at gasoline stations or onboard canisters on motor vehicles; Phase I or Phase II volatility limits have only modest effects on refueling vapor control.
- o Either Stage II or onboard controls ultimately produce about the same emission reduction but in terms of implementation timing Stage II provides the reductions earlier, thus being most effective over the next five to ten years as shown in Figure 2.
- o A general projection of future total emissions and ozone air quality with Phase I and II volatility control and Stage II is shown in Figure 3. The ozone attainment line is based on an approximate 15-20% reduction needed in total NMHC emissions projected from the most recent ozone levels.
- o This preliminary projection indicates that the Portland-Vancouver area will attain ozone standards between 1990 and 1995.
- o Additional control strategies (such as tighter federal tailpipe limits on new vehicles, etc.) may be needed after 2005 to maintain compliance with the ozone standard as the population, traffic and economy continue to grow.
- o Stage II is especially important to provide airshed room for growth and development during the 1990s.

Public Hearing Testimony

- o The groups that had been represented on the Committee gave widely differing testimony and none of these groups supported the specific proposal.
- o The petroleum marketers and gasoline dealers opined that the proposal was too much too soon; in addition, the proposal would force business decisions on installation of underground piping before a decision had been made on the overall Stage II requirements.
- o The environmental groups opined that the proposal was too little since it would only require the underground piping portion which would not, by itself, provide any emission reduction; they also recommended larger boundaries over time.
- o The testimony clarified that the November 1989 recommendation of the Committee did not represent a tight consensus but rather a middle ground within widely differing views. A summary of the public hearing testimony is attached (Attachment C).

Based on the public hearing testimony and the other recent developments, the Department believes it is appropriate to by pass the intermediate step of requiring underground piping and proceed with full implementation of Stage II vapor recovery (above- and below-ground portions).

Followup Meeting with Advisory Committee

- o Department staff met again with the Stage II Technical Advisory Committee on August 29, 1990, to discuss boundaries, gallons per month (gal/mo) exemption cutpoints, and schedules for full implementation of Stage II vapor recovery.
- o Should the Commission elect to support full Stage II, the Committee generally favored phase-in of Stage II systems over a time period of three or more years, with Stage II systems required on largest stations first, smaller stations later.
- o The Committee was divided between the two following implementation options:

<u>Throughput</u>	<u>Date</u>	<u>Boundaries</u>
200,000 gal/mo	12/31/91	Multnomah, Washington, Clackamas, Yamhill, Lane and Jackson Counties
100,000 gal/mo	12/31/92	" " " " " "
40,000 gal/mo	12/31/93	" " " " " "
40,000 gal/mo	12/31/94	Rest of Willamette Valley
40,000 gal/mo	12/31/95	Statewide

OR

250,000 gal/mo	12/31/91	Multnomah, Washington and Clackamas Counties
150,000 gal/mo	12/31/92	" " "
75,000 gal/mo	12/31/93	" " "
50,000 gal/mo	12/31/94	" " "

- o The Committee's recommendations for extended schedules were apparently based on:
 - concerns that enough qualified installers were not available to do the work within a shorter time period; and
 - expectations that the gasoline throughput from the largest stations (200,000 gal/mo or larger) represented a significant portion of the total gasoline throughput.

Alternatives

1. Adopt original proposal to require installation of Stage II underground piping at November 1990 EQC meeting, and consider above-ground requirements after final Clean Air Act reauthorization.
2. Request hearing authorization at November 1990 EQC meeting for complete Stage II systems (above- and below-ground portions).

Discussion

Stage II has both air quality and economic development benefits. Stage II has been proposed by DEQ because:

- o It is the most cost-effective control measure available to the State to further reduce ozone-causing emissions, and potentially the only measure available as growth cushion for economic development during continued nonattainment status (national volatility limits or onboard requirements would not be available for growth cushion since they would be required on a national basis);
- o It complements very well the tightening of gasoline volatility limits;
- o It would fill the timing gap until onboard canisters are required on new cars (not yet adopted, then 15-20 years to realize maximum benefit from onboard).

Full implementation of Stage II vapor recovery on gasoline stations would also:

- o Reduce toxic emissions and exposures of benzene, toluene and xylene;
- o Provide some gasoline conservation benefits due to capture and recycling of refueling vapors.

Full implementation of Stage II vapor recovery on gasoline stations is consistent with:

- o EQC Strategic Plan, Goal 3: Ensure that unallocated assimilative capacity exists by applying highest and best technology in conjunction with pollution prevention methods; and
- o Oregon Benchmarks (public review draft by Oregon Progress Board): Remove airshed barriers to industrial development by 1995.

The Department believes the recent developments listed earlier strengthen the need to proceed with full implementation of Stage II. Full implementation of Stage II would provide the only near-term option of providing significant growth allocation for new economic development and would further insure attainment and maintenance of the ozone standard in the Portland area.

Issues for the Commission to Resolve

The key issues under either alternative are the boundaries, exemption cutpoints and schedules. The Stage II underground piping proposal that went to public hearing in July 1990:

- o Addressed only the three Portland-area counties (Multnomah, Washington and Clackamas);
- o Had an exemption cutpoint of 10,000 gallons per month that would affect about 89% of the gasoline stations and 99% of the gasoline throughput;
- o Required underground piping at the time of UST compliance work or within 24 months, whichever occurred sooner.

The Department proposes and seeks concurrence from the Commission on the following guiding principles for evaluating the Committee recommendations and determining the Stage II boundaries, exemption cutpoints, and schedules:

- o The three Portland-area counties should be addressed first since they are within the ozone nonattainment area and subject to airshed barriers to growth and development (with other areas considered later after further evaluation);

- o The exemption cutpoints and schedules should affect a substantial portion of the regional gasoline throughput during the first and second years of the Stage II program in order to provide airshed room for growth and development;
- o The exemption cutpoints and schedules should affect larger stations first and smaller stations later;
- o The exemption cutpoints and schedules should affect a relatively constant number of tanks each year to insure orderly implementation within the ability of qualified contractors; and
- o Stage II implementation in the Portland area should be essentially completed by the end of 1993 to insure ozone compliance and accommodate potentially explosive growth of population, traffic and businesses.

The Department cannot fully evaluate the Committee recommendation against these principles until it gets more specific information on gasoline throughput of stations in the Portland area. This information will be obtained and evaluated in time to make a specific recommendation to the Commission at the November meeting.

Recommendation

The Department recommends that we proceed with full implementation of Stage II vapor recovery (Alternative 2) and that potential boundaries, exemption cutpoints, and schedules be based on the guiding principles identified by the Department.

If the EQC authorized a public hearing on complete Stage II systems at the November 1990 meeting, then a public hearing could be held in January 1991, with adoption considered in March 1991. Action on the Clean Air Act reauthorization should be completed before Stage II adoption.

Approved:

Section:

Merlyn Hough for John Kowalczyk

Division:

Tom Cupkova

Director:

Jul Hansen

Report Prepared By: Merlyn L. Hough

Phone: 229-6446


Date Prepared: September 5, 1990

- Attachments:
- A) Figures 1, 2 and 3.
 - B) Stage I and Stage II diagrams
 - C) Summary of public hearing testimony

State of Oregon
Department of Environmental Quality

Memorandum

Date: November 29, 1990

To: Environmental Quality Commission
From: Fred Hansen, Director 
Subject: Agenda Item E. December 14, 1990 EQC Meeting

Authorization for Rulemaking Hearing on Minimum Design and Performance Standards for Environmental Control of Gold Mining Operations

At the Work Session on Thursday, December 13, 1990, the Department will present information and participate with the Commission in a discussion of the environmental effects of gold mining and recovery operations, and the options for environmental regulation of such operations.

This agenda item has been included to provide notice of the potential option for the Commission to instruct the Department to draft proposed rules to reflect Commission policy direction, and to proceed to public rulemaking hearing on those proposed rules. The Commission could also direct the Department to draft proposed rules and return at a subsequent meeting for rulemaking hearing authorization.

The Department believes it is appropriate to proceed to rulemaking to establish the environmental design and performance standards for gold mining and recovery operations as soon as practicable in order to clearly establish environmental expectations for the benefit of potential permit applicants.

Department Recommendation

The Department recommends that the Commission:

- Reflect upon the December 13, 1990, Work Session discussion and give specific policy direction to the Department regarding the approach to environmental regulation of gold mining and recovery operations.
- Authorize the Department to draft proposed rules to reflect the Commission policy direction and proceed to public rulemaking hearing at the earliest practicable date.

FH:l

Alternative Rule Changes for Agenda Item E, January 31, 1991

Change 4

It should be noted that the Methods Flow Chart referred to in proposed rule OAR 340-40-108 (7) was inadvertently left out of the final proposed rule. The Department recommends that the chart referred to in 340-40-108 (7) continue to be associated with the proposed rules and included as an attachment to the rules.

The chart was included as part of the rules which went to public hearing. There were no comments received on the chart nor have any changes been made to the chart.

OAR 340-40-108 (7): Methods Flow Chart: A flow chart, Appendix [I] A, graphically describes the methods to be used in establishing maximum measurable levels, which may, as appropriate, be used to interpret these rules.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: December 14, 1990
Agenda Item: F
Division: Air Quality
Section: Planning & Development

SUBJECT:

Proposed Adoption of Portland Central Business District (CBD) Parking Offset Rule

PURPOSE:

To allow the City of Portland to meet growth and associated new parking needs in the CBD without degrading carbon monoxide air quality.

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
 - Proposed Rules Attachment A&B
 - Rulemaking Statements Attachment C
 - Fiscal and Economic Impact Statement Attachment D
 - Public Notice Attachment E
- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order Attachment ___
- Approve Department Recommendation
 - Variance Request Attachment ___
 - Exception to Rule Attachment ___
 - Informational Report Attachment ___
 - Other: (specify) Attachment ___

DESCRIPTION OF REQUESTED ACTION:

This report requests that the Environmental Quality Commission (EQC, Commission) adopt the proposed Portland Central Business District Parking Offset Rule as an amendment to the Portland Carbon Monoxide (CO) State Implementation Plan (SIP). No changes are proposed as a result of the public hearing authorized by the Commission at its September 21, 1990, meeting.

The new Rule would allow the City of Portland to exceed the CO SIP parking lid to meet new parking growth needs projected for the next ten years in the CBD without any increase in CO emissions. The Rule contains a provision for a net air quality benefit by requiring emission offsets ranging from 1.2 to 2.0 of the potential emissions increase from new parking. The Rule also contains a Monitoring and Contingency Plan to guarantee that increases in parking will not produce corresponding increases in CO emissions should offset measures not produce expected results.

The CBD parking lid contained in the 1982 CO SIP would be revised from 40,855 to 43,914 to reflect the actual number of existing and approved spaces in 1982 based on a more accurate parking space count conducted in 1986. Under the proposed Offset Rule, the revised parking ceiling of 43,914 spaces could be increased by up to 1,370 spaces, providing emission offset measures are implemented.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: _____	Attachment ___
Enactment Date: _____	
<u>X</u> Statutory Authority: <u>ORS 468.020, 468.280</u>	
<u>and 468.305</u>	Attachment <u>F</u>
___ Pursuant to Rule: _____	Attachment ___
___ Pursuant to Federal Law/Rule: _____	Attachment ___
___ Other: _____	Attachment ___
___ Time Constraints: _____	

There is an immediate need to add new parking in the Portland CBD to meet growth projections. However, before actual offsets can be usable, the Portland City Council will need to adopt a contingency measure which would guarantee restricted use of parking under city control to make up any shortfall that may occur from failure of an offset to materialize. Also, the Environmental Protection Agency (EPA) will need to approve the SIP revision. The EPA is expected to act on approval by the end of this year, and City Council action on the contingency measure is expected to occur early in 1991.

Meeting Date: December 14, 1990
Agenda Item: F
Page 3

DEVELOPMENTAL BACKGROUND:

<input type="checkbox"/>	Advisory Committee Report/Recommendation	Attachment	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Hearing Officer's Report/Recommendations	Attachment	<u>G</u>
<input checked="" type="checkbox"/>	Response to Testimony/Comments	Attachment	<u>H</u>
<input type="checkbox"/>	Prior EQC Agenda Items: Item D, <u>Portland CBD Parking Offset Rule (Hearing Authorization), September 21, 1990</u>	Attachment	<input type="checkbox"/>
<input type="checkbox"/>	Other Related Reports/Rules/Statutes:	Attachment	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Supplemental Background Information	Attachment	<u>I</u>

In 1982 EPA approved a control strategy plan for meeting and maintaining federal CO standards in the Portland downtown area (CBD), which was recognized by EPA as the official nonattainment area for CO in the Portland-Vancouver region. The control plan included the city's updated 1980 parking policy (with an upper limit on CBD parking) and Parking Management program as significant parts of the overall strategy and targeted the end of 1985 as the date that the city would attain the federal 8-hour CO standard. No violations of the 8-hour standard have been recorded at the Department's monitoring sites in the downtown area since the end of 1984, indicating apparent attainment. Because of the requirement to maintain standards upon achieving attainment, any significant changes to the original control strategy call for a formal revision of the SIP which must be approved by the EPA.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

Testimony from the public hearing in Portland is summarized in Attachment G. Department responses to the testimony are contained in Attachment H. One person representing the Central Eastside Industrial Council presented oral testimony only and three individuals representing different organizations sent in written testimony only. With the exception of the testimony from The League of Women Voters, there was support for the basic thrust of the proposed Offset Rule. Two of the represented organizations (Central Eastside Industrial Council and the Clean Air Business Alliance) were generally critical of the downtown parking lid.

The Central Eastside Industrial Council was fearful that implementation of fringe parking in the Central Eastside area would have negative effects on the Central Eastside for future growth and development opportunities. The Department's Indirect Source Rule would prevent CO pollution problems from occurring in this area.

The Northwest Propane Gas Association wanted to make sure that propane fuel would be given equal consideration with compressed natural gas. The proposed rule does not discriminate among potential alternative fuels, and all proposals would be given equal consideration.

With respect to the parking lid, the Department's response (Attachment H) indicated the importance of the lid as part of the overall framework for managing downtown parking and its effectiveness in preventing degradation of CO air quality.

The League of Women Voters requested that the Monitoring and Contingency Plan component of the proposed rule be changed, because it was feared that the city might close short-term-oriented parking if offsets were not effective. While this could happen under the proposed rule, the city's intent is to eliminate long-term parking in favor of creating short-term parking if the contingency plan must be implemented. The Department believes, however, that the chances of needing to implement the contingency plan are slim.

PROGRAM CONSIDERATIONS:

Existing staff resources are anticipated to be sufficient to implement the proposed rule within normal work loads.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. The city would continue its policy of removing existing parking spaces in order to add new spaces in the event that the additional spaces would otherwise put the total number of downtown spaces over the established parking ceiling.

This policy has worked and would theoretically continue to work to ensure that the parking ceiling would be maintained as new developments opened. However, from a practical standpoint, the bulk of the parking controlled by the city is short-term (4 hours or less) and those spaces have been determined to be in short supply by past studies. To close such spaces in exchange for new long-term spaces would be contrary to the city's parking policy goals and the city's efforts over the last several years to build short-term-oriented parking structures. The city held a public meeting in the fall of 1989 to consider eliminating on-street parking spaces in selected locations in the downtown retail core. The proposal met with widespread opposition from affected retailers and customers and one environmental group.

2. Proceed to develop a CO maintenance plan for the area that provides a growth cushion for expected growth and development in the downtown.

This alternative would be highly desirable, except for the time constraints. The city has an immediate need to accommodate new development projects, but a maintenance plan would probably take one to three years to complete. Furthermore, EPA requirements for a maintenance plan are not clear as yet, as a result of the new Clean Air Act authorized by the Congress.

3. Add an Air Quality Parking Offset Rule to the Portland Carbon Monoxide State Implementation Plan.

This alternative could provide opportunity for additional new parking in a relatively short period of time (6 months), while assuring that no increase in CO emissions would occur.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends adoption of the proposed Parking Offset Rule as an addition to the Portland Carbon Monoxide State Implementation Plan (Alternative 3). The Department considered the public testimony carefully, but concluded no changes to the proposed Rule are necessary. Adoption of the proposed Rule would provide for a timely and relatively modest addition of up to 1,370 spaces (approximately three percent) to the parking inventory, with the assurance through the contingency and monitoring provisions that carbon monoxide emissions would not increase. The city and business community support this approach, at least as an interim measure, until a complete CO maintenance plan can be developed.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The Alternative 3 recommendation is expected to be consistent with the strategic plan, agency policy and legislative policy.

ISSUES FOR COMMISSION TO RESOLVE:

The offset concept has heretofore applied only to new industrial sources in nonattainment areas. Does the Commission support extending the offset concept to new indirect sources (vehicle parking facilities)?

GENERAL ADMINISTRATION

468.005 Definitions. As used in ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter, unless the context requires otherwise:

(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) "Order" has the same meaning as given in ORS 183.310.

(5) "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.

(6) "Rule" has the same meaning as given in ORS 183.310.

(7) "Standard" or "standards" means such measure of quality or purity for air or for any waters in relation to their reasonable or necessary use as may be established by the commission pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter. [Formerly 449.001]

468.010 Environmental Quality Commission; appointment; confirmation; term; compensation and expenses. (1) There is created an Environmental Quality Commission. The commission shall consist of five members, appointed by the Governor, subject to confirmation by the Senate as provided in ORS 171.562 and 171.565.

(2) The term of office of a member shall be four years, but the members of the commission may be removed by the Governor. Before the expiration of the term of a member, the Governor shall appoint a successor to assume the duties of the Governor on July 1 next following. A member shall be eligible for reappointment, but no member shall serve more than two consecutive terms. In case of a vacancy for any cause, the Governor shall make an appointment to become immediately effective for the unexpired term.

(3) A member of the commission is entitled to compensation and expenses as provided in ORS 292.495. [Formerly 449.016]

468.015 Functions of commission. It is the function of the commission to establish policies for the operation of the department in a manner consistent with the policies and purposes of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter. In addition, the commission shall perform any other duties vested in it by law. [1973 c.835 §4]

468.020 Rules and standards. (1) In accordance with the applicable provisions of ORS 183.310 to 183.550, the commission shall adopt such rules and standards as it considers necessary and proper in performing the functions vested in law in the commission.

(2) Except as provided in ORS 183.335 (6) the commission shall cause a public hearing to be held on any proposed rule or standard prior to its adoption. The hearing may be before the commission, any designated member thereof or any person designated by and acting for the commission. [Formerly 449.173; 1977 c.38 §1]

468.030 Department of Environmental Quality. There is hereby established in the executive-administrative branch of the government of the state under the Environmental Quality Commission a department to be known as the Department of Environmental Quality. The department shall consist of the director of the department and all personnel employed in the department. [Formerly 449.032]

468.035 Functions of department. (1) Subject to policy direction by the commission, the department:

(a) Shall encourage voluntary cooperation by the people, municipalities, counties, industries, agriculture, and other pursuits, in restoring and preserving the quality and purity of the air and the waters of the state in accordance with rules and standards established by the commission.

(b) May conduct and prepare, independently or in cooperation with others, studies, investigations, research and programs pertaining to the quality and purity of the air or the waters of the state and to the treatment and disposal of wastes.

(c) Shall advise, consult, and cooperate with other agencies of the state, political subdivisions, other states or the Federal Government, in respect to any proceedings and all matters pertaining to control of air or water pollution or for the formation and submission to the legislature of interstate pollution control compacts or agreements.

(d) May employ personnel, including specialists, consultants and hearing officers, pur-

Proposed Amendment To OAR 340-20-047

Section 4.2

CONTROL STRATEGY
FOR
PORTLAND-VANCOUVER INTERSTATE
AIR QUALITY MAINTENANCE AREA (AQMA)
(OREGON PORTION)
STATE IMPLEMENTATION PLAN
FOR
CARBON MONOXIDE

July 16, 1982

Oregon Department of Environmental Quality
Metropolitan Service District
City of Portland

incorporated as a major part of the selected control strategy. The specific provisions of that plan are as follows:

1. Maintain and Manage Downtown Parking Inventory

(a) At the end of any quarter of any year, the total inventory of parking spaces available for use in downtown will not exceed [40,855.] 43,914 plus any additional spaces allowed under the Rules for Parking Offsets in Portland (OAR 340-20-400 through 440). (Parking spaces for residential and hotel uses approved after May 29, 1973, are exempt from this total inventory.) Periodic review of the total inventory available for use in downtown will be made by the City's Parking Manager for the review and consideration of the City Planning Commission and the City Council.

(b) Approval of new parking will be made based on maximum floor-space ratios established in Section 9 of the Parking and Circulation Policy. The Parking Manager will recommend the number of spaces to be made available for long-term and short-term use, general public use, carpools and bicycle storage. In addition, the Parking Manager will recommend conditions affecting the future use of approved parking.

(c) Changes in the number and use of existing parking will be monitored and steps taken to coordinate any enforcement of the policy. The Oregon Revised Statutes (ORS) 468.275 through .620 authorize the Oregon Environmental Quality Commission to adopt programs necessary to meet and maintain State and federal standards. The mechanism for implementing these programs is the Oregon Administrative Rules (OAR). The rules that are pertinent to the carbon monoxide control strategy for the Oregon portion of the Portland-Vancouver AQMA are:

* OAR 340-20-220 through -275, the new source review rules;

* OAR 340-20-300 through -320, the plant site emission limit rules;

- * OAR 340-24-300 through -350, the motor vehicle emission control inspection test criteria and standards;
- * OAR 340-31-025, the State standard for carbon monoxide is set equal to the primary and secondary federal standard.
- * OAR 340-20-400 through 440, the Rules for Parking Offsets in the Portland Central Business District;

New Source Review Rules

The new source review rules require major new or modified stationary sources locating in a non-attainment area to:

1. Meet lowest achievable emission rates;
2. Demonstrate that the source will comply with the growth increment available or provide emission offsets;
3. Provide an analysis of alternative sites, sizes, production processes and control techniques.

Plant Site Emission Limit Rules

Plant site emission limit rules establish a baseline allowable emission rate for existing sources of carbon monoxide that are subject to regular permit requirements. These rules do not allow significant growth of stationary source emissions unless a growth margin is available or an offset can be obtained.

Rules for Parking Offsets in the Portland Central Business District

The parking offset Rules identify procedures for adding parking spaces in downtown Portland through the implementation of prescribed air quality improvement measures. These Rules include calculation, monitoring and contingency requirements to insure 1) the air quality improvement measures will more than offset the carbon monoxide emissions increases from motor vehicles using the additional parking spaces; and 2) compliance will be maintained with ambient carbon monoxide air quality standards.

Inspection/Maintenance

All major urban areas needing an extension beyond 1982 for attainment of the ozone standard are required to implement a vehicle inspection/maintenance program by December 31, 1982. The Oregon inspection/maintenance program has been in mandatory operation since July 1975. The inspection is required for all vehicles registered within the Metro boundary. Testing in the Portland region is performed for carbon monoxide, as well as for hydrocarbons.

Appendix 4.3-8 contains the required information about Oregon's inspection/maintenance program.

HWH:a
PLAN\AH10699

PARKING OFFSETS IN THE PORTLAND CENTRAL BUSINESS DISTRICT

PURPOSE

340-20-400 These rules 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.

Stat. Auth.: ORS Ch. 468

SCOPE

340-20-405 Subject to the provisions of these rules, 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.

DEFINITIONS

340-20-410 (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)

(l) 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.

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 equivalencies 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

(b) Category II parking offsets at a 1.2 or greater (up to 2.0) ratio based on the type of parking offset and the relative locations (core versus non-core sectors) of the parking offsets and the new parking spaces.

(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:

(a) 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) above;

(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.

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.

HWH:a
PLAN\AH10592 (8/21/90)

RULEMAKING STATEMENTS FOR PROPOSED PORTLAND CBD PARKING OFFSET
AND REVISION TO THE STATE OF OREGON
CLEAN AIR ACT IMPLEMENTATION PLAN

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the intended action to amend a rule.

(1) Legal Authority

This proposal amends Oregon Administrative Rules (OAR) 340-20-047 and adds 340-20-400 through 340-20-430. It is proposed under authority of Oregon Revised Statutes (ORS) Chapter 468.

(2) Need for these Rules

The City of Portland projects a need to add up to 1,370 new parking spaces in the CBD to meet growth anticipated in the next ten years. The Portland CO SIP control strategy contains a parking ceiling for the CBD which would prevent this increase. New parking could be added without jeopardizing the integrity of the CO SIP if CO emission offsets are provided to more than compensate for any increase in CO emissions created by new parking. The CO SIP and parking ceiling needs to be revised in order to accommodate a new offset Rule.

(3) Principal Documents Relied Upon

1. Control Strategy for Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) (Oregon Portion), State Implementation Plan Revision, 1982, City of Portland, Metropolitan Service District, Oregon Department of Environmental Quality, Portland, Oregon.
2. Air Quality Offsets for Parking, Final Report, Cambridge Systematics, Inc., Berkeley, California, January 25, 1988.
3. Portland Downtown Parking Plan & Circulation Update, Final Report & Recommendations, Barney & Worth, Inc., Portland, Oregon, November 1989.
4. Downtown Parking Management Plan, City of Portland, Portland, Oregon, July 1990.

All documents referenced may be inspected at the Department of Environmental Quality, Air Quality Division, 811 S.W. 6th Avenue, Portland, Oregon, during normal business hours.

LAND USE CONSISTENCY STATEMENT

The proposed rule changes appear to affect land use as defined in the Department's coordination program with DLCD, but appear to be consistent with the Statewide Planning Goals.

With regard to Goal 6, (air, water, and land resources quality), the proposed changes are designed to enhance and preserve air quality in the State and are considered consistent with the goal. The proposed rule changes do not appear to conflict with the other Goals.

Public comment on any land use issue involved is welcome and may be submitted in the same fashion as indicated for other testimony on these rules.

It is requested that local, state, and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning Goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any appropriate conflicts brought to our attention by local, state, or federal authorities.

HWH:a
PLAN\AH10593 (8/21/90)

FISCAL AND ECONOMIC IMPACT STATEMENT
FOR PROPOSED PORTLAND CBD PARKING OFFSET RULE
AND REVISION TO THE PORTLAND CARBON MONOXIDE
STATE IMPLEMENTATION PLAN

PROPOSAL SUMMARY

The Department is proposing to add an Air Quality Parking Offset Rule that is specific to the Portland Central Business District (CBD) carbon monoxide (CO) nonattainment area. Also, the Portland CO State Implementation Plan (SIP) would be amended to incorporate the new Rule. The key features of the proposal are listed below.

- o Up to 1,370 new parking spaces above the CO SIP parking ceiling would be allowed in accordance with a proposed Air Quality Parking Offset Rule;
- o Emission offsets would be required to provide a net air quality benefit ranging from 1.2 to 2.0 above the emission increases associated with new parking; In general, Category I measures, i.e., those that reduce emissions on a per vehicle trip basis, would be set in the low end of the net benefit range and Category II measures, i.e., those that reduce the number of vehicle trips, would be set in the upper end of the range;
- o An offset Monitoring and Contingency Plan would be required to check on the implementation of specific measures, track changes in traffic flow conditions and provide specific fallback measures to guarantee the emission offsets will be achieved if any particular offset measure fails to achieve or maintain its effectiveness;
- o The ceiling on Portland CBD parking in the CO SIP would be revised from 40,855 to 43,914 to reflect the actual number of existing and approved spaces in 1982 based on a more accurate parking space count conducted in 1986.

Cambridge Systematics, Inc. analyzed and quantified 14 potential transportation control measures that could be implemented to offset the carbon monoxide emissions associated with new downtown Portland parking spaces. The following section summarizes the costs of selected measures. Although there is uncertainty as to the ultimate mix of measures and the extent that any one measure would be utilized in contributing offsets, the first four measures listed below would likely be given priority consideration by the city.

COSTS OF POTENTIAL PARKING OFFSETS

Alternative Work Schedules

Costs associated with this measure are not easily quantified, as no direct expenses would be incurred, except possibly in the initial effort at arranging and shifting employee schedules. The City of Portland and Tri-Met are committing staff resources to develop alternative work hours for city employees.

Subsidy of Ridesharing

Cambridge Systematics assumed a \$0.50 per day subsidy for employees who carpool or ride transit. For carpoolers the subsidy would be applied to a reduction in the cost of parking. For transit riders the subsidy would be toward reducing the price of a monthly transit pass. Since the federal tax code allows for 100% deductibility of parking costs borne by a private sector employer, the net cost for subsidizing carpoolers would be zero. Assuming an equal mix of two-zone and all-zone transit riders, the net cost (transit subsidies are only 20% deductible on federal taxes) to a non-government employer for a \$0.50 per day reduction in the cost of monthly passes would be \$8.40 per employee. Governmental agencies would bear the full \$10.50 per month cost of providing ridesharing subsidies.

The City of Portland estimates that a transit pass subsidy of \$15 per month for all 2000 downtown city employees would cost \$380,000 per year, including the cost of administration.

Reserve Parking for Carpools

The City of Portland estimates that dedicating an additional 150 spaces for carpools in city-owned garages would cost \$5,250 per month in lost revenue, because carpool spaces are currently preferentially priced. To reduce the revenue impact, the price of a carpool space may increase relative to a monthly commuter space. There is currently more demand for carpool spaces than available supply.

Park and Ride Lots

Tri-Met estimates that a 150-space park and ride lot in a typical suburban location has a current capital cost range of \$450,000 to \$550,000. Shopping center facilities with adjacent transit service might make some portion of parking spaces available at little or no cost to individual parkers.

Alternative Fuels

The City of Portland and the State of Oregon are involved in a joint demonstration project to convert 15-25 fleet vehicles to compressed natural gas (CNG). The conversion cost for automobiles to CNG dual fuel is \$2,000 per vehicle. A compressor station to handle 30-50 vehicles is estimated to cost a minimum of \$30,000. Northwest Natural Gas is currently making its fueling facility in the downtown available for the demonstration project. Maintenance costs are being absorbed by existing motor pool staff. In 1988 the City of Portland estimated that a 30 to 50 vehicle program would initially cost \$100,000 with an annual operational cost of \$60,000. The demonstration project will be used to determine net costs of conversion after consideration of the lower unit cost of CNG fuel in comparison to gasoline.

Traffic Flow Improvement

The City of Portland estimates that a systematic traffic flow improvement program, as outlined by Cambridge Systematics, would involve a \$5,000 consultant contract for initial development and an additional 0.25 to 0.5 Full Time Equivalent (FTE) on an ongoing basis.

Fringe Parking

The private sector would be expected to bear the cost of providing fringe parking. An operator of a fringe lot on land owned by the Oregon Department of Transportation charged parkers \$35 per month in 1990. Parking costs in the downtown generally, are two to three times as expensive as the above rate.

Increase Long-Term Rates

An increase of \$1 per day applied to 30,000 long-term parkers would amount to an out of pocket cost totaling \$630,000 on a monthly basis, assuming 21 working days in the average month. Since some employers currently subsidize parking costs for selected employes, not all the cost would be expected to be borne by individual employes.

Reserve Off-Street Parking Before 10 A.M.

The City of Portland estimates that closure of 1,500 city-owned spaces until 10 A.M. would entail a revenue loss of approximately \$2,600 on a daily basis. While this would probably shift long-term oriented parkers into other modes, downtown retailers would probably indirectly benefit by being assured of a plentiful supply of spaces available for short-term use by customers.

COSTS TO STATE AND LOCAL GOVERNMENT AGENCIES

Existing Department staff resources are expected to be sufficient to implement the proposed Rule without causing any shifting of work priorities. The exception to this would be if annual vehicle inspection and maintenance (I/M) were to be pursued as an offset measure. However, given the numerous difficulties and time to implement an annual program and the limited scope of the proposed Parking Offset Rule (up to 1,370 spaces), annual I/M probably would not be pursued on a short-term basis.

Other than previously documented FTE's for individual measures, the City of Portland, Parking Management program has committed 1.0 FTE to manage an offset program.

HWH:a
PLAN\AH10723

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

PORTLAND CBD PARKING OFFSET RULE NOTICE OF PUBLIC HEARING

Hearing Date: October 23, 1990
Comments Due: October 25, 1990

**WHO IS
AFFECTED:**

Downtown Portland residents, City of Portland government, downtown businesses and downtown real estate owners, operators and developers.

**WHAT IS
PROPOSED:**

The Department of Environmental Quality is proposing to amend OAR 340-20-047, the Portland Carbon Monoxide portion of the State of Oregon Clean Air Act Implementation Plan and add an Air Quality Parking Offset Rule.

**WHAT ARE THE
HIGHLIGHTS:**

- 1) A new parking space offset program would be established in the Portland Central Business District to allow the city to exceed the parking lid by 1,370 spaces to deal with projected growth.
- 2) Parking offsets would be required from 1.2 to 2.0 times the potential increased carbon monoxide emissions from new spaces to insure a net air quality benefit from the action.
- 3) A contingency plan would be provided to insure that emission offsets are actually achieved should any transportation control measure fail to achieve or maintain its expected effectiveness.

**HOW TO
COMMENT:**

Copies of the complete proposed rule package may be obtained from: Air Quality Division, Department of Environmental Quality, 811 SW Sixth Avenue, Portland, OR 97204. For further information contact Howard Harris at (503) 229-6086.

A public hearing will be held before a hearings officer at:

6:00 p.m.
October 23, 1990
Portland Building, Rm. A
1120 SW Fifth Avenue
Portland, Oregon



811 S.W. 6th Avenue
Portland, OR 97204

11/1/86

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

E-1

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ, but must be received by no later than October 25, 1990.

**WHAT IS THE
NEXT STEP:**

After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U.S. Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come in December 1990 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.*

* Note: refer to Attachments C and D of the staff report.

HWH:a
PLAN\AH10595 (8/21/90)

Meeting Date: December 14, 1990
Agenda Item: F
Page 6

INTENDED FOLLOWUP ACTIONS:

Submit the Parking Offset Rule as an addition to the Portland Carbon Monoxide State Implementation Plan to EPA for approval.

Approved:

Section: John Kowalyszyn

Division: Gene Stephan

Director: Jul Hansen

Report Prepared By: Howard W. Harris

Phone: 229-6086

Date Prepared: November 21, 1990

HWH:a
PLAN\AH11273
(11/21/90)

(2) Nothing in ORS 468.263 to 468.272 is intended as a restriction or limitation upon any other powers which a county might otherwise have under the laws of this state, but shall be construed as cumulative.

(3) If any provision of ORS 468.263 to 468.272 or the application thereof to any person or circumstance is held to be invalid, such invalidity shall not affect other provisions of ORS 468.263 to 468.272 which can be given effect without the invalid provision or application, and to this end the provisions of ORS 468.263 to 468.272 are declared to be severable. [1974 s.s. c.34 §9]

Note: See note under 468.263.

468.272 Application of other laws relating to bonds. Any restrictions, limitations, conditions or procedures provided by other statutes relating to the issuance and sale of bonds or other obligations including, but not limited to, any restrictions, limitations, conditions or procedures set forth in ORS 288.320, do not apply to the issuance and sale of bonds authorized by ORS 468.263 to 468.272. [1974 s.s. c.34 §10]

Note: See note under 468.263.

AIR POLLUTION CONTROL

468.275 Definitions for air pollution control laws. As used in this chapter, unless the context requires otherwise:

(1) "Air-cleaning device" means any method, process or equipment which removes, reduces or renders less noxious air contaminants prior to their discharge in the atmosphere.

(2) "Air contaminant" means a dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter or any combination thereof.

(3) "Air contamination" means the presence in the outdoor atmosphere of one or more air contaminants which contribute to a condition of air pollution.

(4) "Air contamination source" means any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes.

(5) "Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient

quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby.

(6) "Area of the state" means any city or county or portion thereof or other geographical area of the state as may be designated by the commission.

(7) "Woodstove" means a wood fired appliance with a closed fire chamber which maintains an air-to-fuel ratio of less than 30 during the burning of 90 percent or more of the fuel mass consumed in the low firing cycle. The low firing cycle means less than or equal to 25 percent of the maximum burn rate achieved with doors closed or the minimum burn achievable. [Formerly 449.760; 1983 c.333 §1]

468.280 Policy. (1) In the interest of the public health and welfare of the people, it is declared to be the public policy of the State of Oregon:

(a) 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.

(b) To provide for a coordinated state-wide program of air quality control and to allocate between the state and the units of local government responsibility for such control.

(c) To facilitate cooperation among units of local government in establishing and supporting air quality control programs.

(2) The program for the control of air pollution in this state shall be undertaken in a progressive manner, and each of its successive objectives shall be sought to be accomplished by cooperation and conciliation among all the parties concerned. [Formerly 449.765]

468.285 Purpose. It is the purpose of the air pollution laws contained in ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter to safeguard the air resources of the state by controlling, abating and preventing air pollution under a program which shall be consistent with the declaration of policy in this section and with ORS 468.280. [Formerly 449.770]

468.290 Application of air pollution laws. Except as provided in this section and in ORS 468.450, 476.380 and 478.960, the air pollution laws contained in this chapter do not apply to:

nants and different air contamination sources or classes thereof. [Formerly 449.785]

468.300 When liability for violation not applicable. The several liabilities which may be imposed pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter upon persons violating the provisions of any rule, standard or order of the commission pertaining to air pollution shall not be so construed as to include any violation which was caused by an act of God, war, strife, riot or other condition as to which any negligence or wilful misconduct on the part of such person was not the proximate cause. [Formerly 449.825]

468.305 General comprehensive plan. Subject to policy direction by the commission, the department shall prepare and develop a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of new air pollution in any area of the state in which air pollution is found already existing or in danger of existing. The plan shall recognize varying requirements for different areas of the state. [Formerly 449.782]

468.310 Permits. By rule the commission may require permits for air contamination sources classified by type of air contaminants, by type of air contamination source or by area of the state. The permits shall be issued as provided in ORS 468.065. [Formerly 449.727]

468.315 Activities prohibited without permit; limit on activities with permit. (1) Without first obtaining a permit pursuant to ORS 468.065, no person shall:

(a) Discharge, emit or allow to be discharged or emitted any air contaminant for which a permit is required under ORS 468.310 into the outdoor atmosphere from any air contamination source.

(b) Construct, install, establish, develop, modify, enlarge or operate any air contamination source for which a permit is required under ORS 468.310.

(2) No person shall increase in volume or strength discharges or emissions from any air contamination source for which a permit is required under ORS 468.310 in excess of the permissive discharges or emission specified under an existing permit. [Formerly 449.731]

468.320 Classification of air contamination sources; registration and reporting of sources. (1) By rule the commission may classify air contamination sources according to

levels and types of emissions and other characteristics which cause or tend to cause or contribute to air pollution and may require registration or reporting or both for any such class or classes.

(2) Any person in control of an air contamination source of any class for which registration and reporting is required under subsection (1) of this section shall register with the department and make reports containing such information as the commission by rule may require concerning location, size and height of air contaminant outlets, processes employed, fuels used and the amounts, nature and duration of air contaminant emissions and such other information as is relevant to air pollution. [Formerly 449.707]

468.325 Notice prior to construction of new sources; order authorizing or prohibiting construction; effect of no order; appeal. (1) The commission may require notice prior to the construction of new air contamination sources specified by class or classes in its rules or standards relating to air pollution.

(2) Within 30 days of receipt of such notice, the commission may require, as a condition precedent to approval of the construction, the submission of plans and specifications. After examination thereof, the commission may request corrections and revisions to the plans and specifications. The commission may also require any other information concerning air contaminant emissions as is necessary to determine whether the proposed construction is in accordance with the provisions of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter and applicable rules or standards adopted pursuant thereto.

(3) If the commission determines that the proposed construction is in accordance with the provisions of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter and applicable rules or standards adopted pursuant thereto, it shall enter an order approving such construction. If the commission determines that the construction does not comply with the provisions of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter and applicable rules or standards adopted pursuant thereto, it shall notify the applicant and enter an order prohibiting the construction.

(4) If within 60 days of the receipt of plans, specifications or any subsequently requested revisions or corrections to the plans and specifications or any other information required pursuant to this section, the commission fails to

ATTACHMENT G

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: October 30, 1990

TO: Environmental Quality Commission

FROM: Howard Harris, Hearing Officer

SUBJECT: Hearing Report for October 23, 1990, in Portland--
Proposed Portland Central Business District (CBD)
Parking Offset Rule

Schedule and Procedure

A public hearing was held at the Portland Building, Room A in downtown Portland, Oregon on October 23, 1990. A public notice was published in the Secretary of State Bulletin 22 days (15-day minimum period required) prior to the public hearing. Also, a public notice was published in The Oregonian newspaper 30 days prior to the public hearing.

Of the 7 people in attendance, oral testimony was given by one person representing the Central Eastside Industrial Council. Written testimony was received from the Clean Air Business Alliance, Northwest Propane Gas Association and The League of Women Voters.

Primary Positions

The oral testimony (one person) basically addressed the issue of fringe parking, which was one of the potential offset measures that was studied by Cambridge Systematics and documented in its final report, Air Quality Offsets for Parking, January 25, 1988, prepared for the City of Portland Office of Transportation. Opposition was expressed to implementation of the fringe parking offset measure in the Central Eastside area. With the exception of the letter from The League of Women Voters, the written testimony was generally supportive of the proposed Parking Offset Rule. The League of Women Voters was concerned that the Monitoring and Contingency Plan could lead to the closure of short-term-oriented parking. Two of the commentaries were critical of the parking lid as an air quality management strategy. Summaries of the oral and written testimony are given below.

Peter Fry, Central Eastside Industrial Council

Mr. Fry stated that the Central Eastside Industrial District is a 700-acre area adjacent to the Willamette River on the east side and adjacent to downtown Portland, with 1,600 businesses, predominantly distribution and specialized manufacturing. He indicated that the state (DEQ) needs to assess what its goal is with regard to the parking lid in downtown Portland. If the goal is to spread pollution throughout the metropolitan area, then the parking lid is quite an effective means of accomplishing that end. If the goal is to eliminate pollution by first concentrating it and secondly, implementing means such as mass transit to effectively eliminate the sources of pollution, then the parking lid fails to achieve that goal.

The Central Eastside Industrial Council is concerned about the use of fringe parking as an offset. Mr. Fry indicated that it would not be prudent or wise to introduce pollution into the Central Eastside area if such action degraded air quality to the point that the DEQ would see the need to develop strategies to reduce pollution, if in fact that pollution is caused to a significant degree by the fringe parking. The Central Eastside area should not have to carry that portion of the pollution attributed to the downtown through fringe parking.

Mr. Fry criticized the lid as a temporary solution that does not address resolution of the pollution problem. He indicated that there is a tremendous amount of the (office) market being relocated into other locations that are in direct competition with the central city. If solutions other than the lid are not found, he was fearful that the lid would be expanded (to the Central Eastside area).

Mr. Fry stated that the Central Eastside, over the last ten years, has worked cooperatively with Tri-Met on carpooling. Many of the ideas within the offset strategy are very supportable. The Central Eastside area mainly does not want its capacity (for growth) to be precluded to allow another area (the downtown) to gain capacity.

Marty Brantley, Clean Air Business Alliance

Mr. Brantley attached a July 17, 1990, letter on the City of Portland's final draft, Downtown Parking Management Plan. He indicated support from the Clean Air Business Alliance for the Parking Management Plan (subsequently adopted by the Portland City Council on July 18, 1990). He cited the Air Quality Offsets recommended by the Parking Management Plan and

Memo to: Environmental Quality Commission
October 30, 1990
Page 3

indicated the need for immediate implementation to ensure timely DEQ approval for adjustments to the parking lid.

The Alliance believes that the existing parking policy is inadequate to address the transportation needs of the Downtown in the coming decade. The Alliance would like to see the development of a new Air Quality/Traffic Management policy which would explore both lid-based and non-lid-based options. A new parking policy must place the issue of air quality, growth, and development into a regional context. Mr. Brantley stated that suburban sprawl must be avoided, and at least controlled, if the quality of life that we expect is to be preserved.

Dell Isham, Northwest Propane Gas Association

Mr. Isham stated that the proposed Rule specifies only natural gas, but equal recognition should be given to propane. He indicated that propane cuts carbon monoxide (emissions) by approximately 75% in comparison to conventional gasoline. He pointed out that propane was added to the list of clean-burning fuels by the South Coast Air Quality Management District in Southern California. Mr. Isham enclosed a bill draft that would provide a tax credit for converting vehicles to alternative fuel.

Cheri Unger, The League of Women Voters

Ms. Unger stated that The League of Women Voters is opposed to the proposed Rule as written and recommended that the contingency plan be changed. She indicated that the proposed Rule would require the city to remove existing parking spaces under city control if an offset is not effective, and the bulk of such spaces are short-term-oriented. She cited a 1984 study which concluded that the city had a shortage of 2,000 to 3,000 short-term spaces and an excess of 4,000 to 5,000 long-term spaces. The League requested that the proposed Rule be changed so that offsets would not be approved by the Department until they show actual air quality benefits.

HWH:a
PLAN\AH11274

ATTACHMENT H

RESPONSE TO THE TESTIMONY RECEIVED THROUGH THE PUBLIC HEARING ON THE PROPOSED PORTLAND CENTRAL BUSINESS DISTRICT (CBD) PARKING OFFSET RULE

Four significant issues were identified in the public hearing testimony: 1) the parking lid as an unreasonable air quality management strategy; 2) the use of fringe parking in the Central Eastside area as an offset measure to allow more parking in downtown Portland; 3) the contingency plan would lead the city to close short-term spaces if offsets were not effective; 4) propane should be given equal consideration to compressed natural gas as an alternative fuel. The issues are discussed below.

Parking Lid

Issue--The parking lid, or ceiling is an unreasonable air quality management tool and needs to be re-evaluated in terms of development needs over the next decade.

Response--The parking lid was first adopted by the Portland City Council in 1975 as one of the key elements of an overall Downtown Parking and Circulation Policy. Another key feature of the parking policy was the development of maximum parking ratios for new developments. These two elements have been reaffirmed through two subsequent updates of the parking policy (1980 and 1985). The 1980 update of the parking policy was made a part of the Portland Carbon Monoxide State Implementation Plan.

The parking lid has prevented degradation of CO air quality by constraining growth in the downtown parking supply to 3% from 1975 to 1989, while during the same time period downtown employment increased by 22%. The parking lid allowed the transit system to accommodate the commuter travel needs of the bulk of the employment growth, as system ridership expanded by 61% during this 14-year time period. The city is free to propose other control measures as effective strategies to maintain air quality. Alternatives to the parking lid will be studied over the next 2-3 years.

The Department supports the effort to re-examine the parking policy, with the goal of developing a long-term (20-year) air quality maintenance strategy for the central city area.

Fringe Parking

Issue--Fringe parking should not be developed in the Central Eastside area as an offset measure.

Response--Tri-Met officials and other individuals involved in the review of potential offset measures to be pursued by the City were critical of utilizing fringe parking as an offset measure. Consequently, the city is unlikely to pursue fringe parking on a parking offset basis. Furthermore, the Department's Indirect Source Rule would insure that major additional new parking anywhere in the region would not cause violations of CO air quality standards.

Monitoring & Contingency Plan

Issue--The Monitoring and Contingency Plan could result in the city closing short-term-oriented parking spaces if offsets were not effective. Offsets should not be approved by the Department until they show actual air quality benefits.

Response--The proposed Rule has three different safeguards to deal with shortfalls in offset effectiveness: 1) 10 A.M. opening of public garages; 2) decreasing the Reserve category of the parking inventory; 3) closing parking spaces. The city would probably not go to the closure option, except as a last resort. Also, the Rule provides a 6-month period in which to correct for any shortfalls. The first safeguard would result in the conversion of use from long-term to short-term, which action is compatible with the city's and League's interest.

With respect to tying offsets to actual air quality benefits, the offsets will be monitored to insure achievement of anticipated benefits.

The Department believes that the proposed Rule provides the city with ample corrective time and alternatives to avoid closing parking spaces, and the monitoring component provides the Department with sufficient assurance that air quality benefits will be achieved as expected, so no changes to the Monitoring and Contingency Plan are proposed.

Alternative Fuels

Issue--Propane should be given equal consideration with compressed natural gas.

Response--The proposed Rule does not discriminate among alternative fuels. The Rule lists alternative fuels as an offset without any identification of specific fuel types. The write-up of compressed natural gas in the Fiscal and Economic Impact Statement (attachment to the September 21, 1990, Commission staff report) was not intended to exclude other alternative fuels as potential offsets. Compressed natural gas was documented in the staff report attachment, because it was the only alternative fuel for which specific local cost information was available. The Department will give propane equal consideration along with other alternative fuels that might be proposed as offsets.

Two consultant studies followed the parking count effort, with the first (Air Quality Offsets for Parking) looking at transportation control measures as a way to provide emission offsets for increased parking in the downtown above the ceiling and the second (Portland Downtown Parking Plan & Circulation Update) constituting a comprehensive examination of parking utilization, traffic circulation problems and future (year 2000) parking needs. In projecting the amount of parking that would be needed in 2000, this latter study utilized the current parking ratios (from the 1985 parking policy update) in conjunction with an assumed expansion of transit ridership (existing 26% all day mode split to 35% mode split in 2000). The projections indicated that an additional 1,370 spaces above the parking ceiling would be needed to accommodate expected growth.

At the beginning of 1990, approximately 1,700 spaces of the total inventory were in the Approved category, representing parking space allocations to future development projects. The Reserve category had 30 spaces. In anticipation that the Reserve category might not have a sufficient number of spaces to allocate to new parking spaces, the 1985 parking policy update allowed the city to borrow spaces from the Approved category provided that at the same time the city identified an equal number of existing spaces which would be closed if the Reserve were not replenished. Recently, new development projects in the downtown have been approved under this provision of the parking policy.

The city and the Department have been working together to develop the proposed Parking Offset Rule to ensure that the Reserve category of the parking inventory could be augmented and allocated to new development projects without exacerbating carbon monoxide air quality in the downtown when those projects are completed and become operational.

Once EPA requirements for long range maintenance plans become clear as an anticipated followup to the prospective Clean Air Act reauthorization, then the city would be in position to do new traffic and air quality projections along with revision of the parking policy. Such an effort would probably require two to three years of planning work. The proposed Parking Offset Rule is a way to provide for maintenance of air quality standards in the interim without stifling new downtown development projects.

ATTACHMENT I

SUPPLEMENTAL BACKGROUND INFORMATION ON ISSUE

The Portland downtown area (roughly, the portion bounded by the Willamette River and the freeway loop) is under the jurisdiction of the city's Downtown Parking and Circulation Policy, originally adopted in 1975, and is the officially designated nonattainment area for carbon monoxide within the Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA). In mid-1982 the state submitted a control plan for meeting the federal carbon monoxide standards within the AQMA by the end of 1985 as a revision to the Federal Clean Air Act State Implementation Plan. A key element of the control plan was a subsequent, 1980 update of the city's parking policy, which established a maximum parking inventory figure of 40,855 spaces, composed of 1) existing spaces; 2) spaces allocated to future development projects; 3) unallocated spaces categorized as the Parking Reserve. The control plan was approved by the U.S. Environmental Protection Agency in the fall of 1982. The downtown area has not violated the federal 8-hour carbon monoxide standard since the end of 1984.

After 1982 the city's parking policy went through another update (1984-1985). The deliberations on revising the policy were prolonged, with retention of the parking ceiling a major point of contention. However, there was nearly unanimous opinion among both the Citizens Advisory Committee and the Technical Advisory Committee that the city needed to collect comprehensive data on downtown parking, including at the Department's request a new count of existing parking spaces.

Following adoption of the updated 1985 parking policy by the Portland City Council in early 1986, the city conducted a new count of downtown parking spaces. The count data went through a thorough verification process, including some spot checks by the Department in the core area (Sector E) of the downtown. After verification the on-street and off-street parking data were computerized. The new count indicated the existence of approximately 3,000 more spaces than the previous count (1984) had shown. Most of the difference between the two counts was in the off-street parking category. Previous counts conducted by the city were hampered by lack of access to privately owned off-street parking facilities, requiring city staff to estimate the number of parking spaces in such facilities with a space factoring technique. Unlike previous counting efforts, the 1986 count managed to obtain access to most of the privately owned off-street facilities. The Department concluded that the lack of access resulted in underestimating the actual number of spaces. To arrive at a revised maximum inventory number, changes in the Reserve and Approved categories of the inventory were tracked from 1985. This resulted in a revised maximum inventory (ceiling) of 43,914 spaces.

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INTENDED FOLLOWUP ACTIONS:

Submit the Parking Offset Rule as an addition to the Portland Carbon Monoxide State Implementation Plan to EPA for approval.

Approved:

Section: John Kowalyszyn
Division: John Bishop
Director: Jul Hansen

Report Prepared By: Howard W. Harris

Phone: 229-6086

Date Prepared: November 21, 1990

HWH:a
PLAN\AH11273
(11/21/90)



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: December 14, 1990

Agenda Item: G

Division: Environmental Cleanup

Section: UST Cleanup

SUBJECT:

Proposed Adoption of Amendments to Rules on Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil.

PURPOSE:

Amendments to Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil: OAR 340-122-305 through 340-122-360 (Soil Matrix Rules) - Request for Adoption.

The proposed amendments make necessary changes in the Department of Environmental Quality's (Department) analytical methods, sampling methodology and reporting requirements, but do not change the actual numeric cleanup standards.

Public hearings have been held and comments received on the proposed amendments.

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

Proposed Rules
Rulemaking Statements
Fiscal and Economic Impact Statement
Public Notice

Attachment A
Attachment B
Attachment C
Attachment D

- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order

Attachment

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<input type="checkbox"/> Approve Department Recommendation	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Variance Request	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Exception to Rule	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Informational Report	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Other: (specify)	Attachment	<input type="checkbox"/>

DESCRIPTION OF REQUESTED ACTION:

The proposed rule amendments are designed to improve the reliability of the Department's analytical methods and sampling methodology, as well as clarify reporting requirements which the regulated community must meet.

The Department requests adoption of the proposed rule amendments.

AUTHORITY/NEED FOR ACTION:

<input type="checkbox"/> Required by Statute: _____	Attachment	<input type="checkbox"/>
Enactment Date: _____		
<input checked="" type="checkbox"/> Statutory Authority: <u>ORS 465.200 to 465.420;</u> <u>ORS 466.705 to 466.835</u>	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Pursuant to Rule: _____	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Pursuant to Federal Law/Rule: _____	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Other:	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Time Constraints: (explain)		

DEVELOPMENTAL BACKGROUND:

<input type="checkbox"/> Advisory Committee Report/Recommendation	Attachment	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hearing Officer's Report/Recommendations	Attachment	<u>E</u>
<input checked="" type="checkbox"/> Response to Testimony/Comments	Attachment	<u>F</u>
<input checked="" type="checkbox"/> Prior EQC Agenda Items: (list)		
Agenda Item H, 7/21/89 EQC Meeting		
Agenda Item E, 9/21/90 EQC Meeting		
	Attachment	<input type="checkbox"/>
<input checked="" type="checkbox"/> Other Related Reports/Rules/Statutes:		
TPH Analytical Methods	Attachment	<u>G</u>
<input type="checkbox"/> Supplemental Background Information	Attachment	<input type="checkbox"/>

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The Soil Matrix Rules were developed and adopted to allow the regulated community to move forward quickly and efficiently

with the cleanup of minor petroleum releases to the soil. For the most part, the soil matrix cleanup program has worked extremely well. One area of concern which was identified when the rules were adopted was the analytical method used to evaluate soil samples and determine if a site needed further remediation.

The current analytical method (EPA 418.1) does not discriminate between naturally occurring hydrocarbons and petroleum hydrocarbons. This "background interference", and its impact on measured contamination, has been a concern of the regulated community and the Department.

The Department has been involved in a national effort with the Environmental Protection Agency (EPA) and other states to develop a consistent methodology which can be used nationwide. While this method has not yet been finalized, the proposed approaches (TPH-G and TPH-D) are based on the most recent developments in this area and will require little, if any, modification when EPA adopts a final approach. They will also provide more accurate measurement of petroleum contamination on a site. Detailed descriptions of the proposed methods were available for public review and comment during the public hearing process.

Comments received during the public hearings were related more toward specific details of the analytical procedures, rather than questioning whether or not the methodology should be adopted.

Representatives from consulting firms and analytical laboratories, who participated in a technical workgroup with the Department, as well as the Environmental Cleanup Advisory Committee (ECAC), also support the proposed changes to the analytical methods and the other amendments to the rules.

PROGRAM CONSIDERATIONS:

The intent of these rules is to allow for efficient cleanup of minor petroleum releases to soil only. These sites typically receive little Department oversight due to the minor hazard they present. It is, therefore, extremely important that the rules clearly delineate the process to be followed and that the analytical methods and sampling methodology provide reliable data which allows the Department to make a decision with reasonable confidence.

The proposed amendments will improve the quality of the information which the Department receives on simple soil cleanups, and increase the confidence of the Department in closing out these sites.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Make no changes in the existing rules.
2. Amend the rules to reflect current, state-of-the-art developments in the area of analytical methods, and also amend other sections of the rules, where necessary, for clarity and consistency.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends Alternative 2.

Given the concerns with the current analytical method for gasoline contamination, the Department feels it is imperative to provide a better approach. The proposed methods will provide more reliable data and are generally preferred by the regulated community and analytical laboratories. It also makes sense to amend the other sections of the rules at this time.

The Department received very few comments on the proposed amendments. Those that were received were generally related to specific details of the analytical procedures, and did not usually question the appropriateness of the approach.

For the reasons stated above, the Department recommends that the Commission adopt the proposed rule amendments.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The development of these rules is consistent with the Strategic Plan, Agency Policy and Legislative Policy.

ISSUES FOR COMMISSION TO RESOLVE:

Should the rule amendments be adopted as per the Department's recommendation, or should we delay until there is a final methodology developed by EPA?

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INTENDED FOLLOWUP ACTIONS:

If the Commission approves the Department's recommendation, the Department will:

1. Continue to work with EPA on the national development and testing of uniform procedures for the analysis of petroleum hydrocarbon contamination;
2. If necessary, request additional amendments at such time as uniform procedures are developed.

Approved:

Section: Don Ruel

Division: Michael Ross

Director: Bill Hauer

Report Prepared By: Alan D. Kiphut

Phone: 229-6834

Date Prepared: November 21, 1990

ADK:adk
matrxstf.rpt
11/21/90

Proposed Revisions to

**NUMERIC SOIL CLEANUP LEVELS
FOR
MOTOR FUEL AND HEATING OIL**

OAR 340-122-305 to 340-122-360

OUTLINE OF RULES

340-122-305	Purpose
340-122-310	Definitions
340-122-315	Scope and Applicability
340-122-320	Soil Cleanup Options
340-122-325	Evaluation of Matrix Cleanup Levels
340-122-330	Evaluation Parameters
340-122-335	Numeric Soil Cleanup Standards
340-122-340	Sample Number and Location
340-122-345	Sample Collection Methods
340-122-350	Required Analytical Methods
340-122-355	Evaluation of Analytical Results
340-122-360	Reporting Requirements

340-122-305 Purpose

These rules establish numeric soil cleanup standards pursuant to ORS 466.745 and OAR 340-122-245 (1988) for the remediation of motor fuel and heating oil releases from underground storage tanks. The soil cleanup levels have been developed to facilitate the cleanup of these releases while maintaining a high degree of protection of public health, safety, welfare and the environment.

340-122-310 Definitions

Terms not defined in this section have the meanings set forth in ORS 465.200[466.540], ORS 466.705, and OAR 340-122-210. Additional terms are defined as follows unless the context requires otherwise:

- (1) "Gasoline" means any petroleum distillate used primarily for motor fuel of which more than 50% of its components have hydrocarbon numbers of C10 or less.
- (2) "Groundwater" means any water, except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir or other body of surface water within the boundaries of the state, whatever may be the geological formation or structure in which such water stands, flows, percolates or otherwise moves.
- (3) "Native soil" means the soil outside of the immediate boundaries of the pit that was originally excavated for the purpose of installing an underground storage tank.
- (4) "Non-gasoline fraction" means diesel and any other petroleum distillate used for motor fuel or heating oil of which more than 50% of its components have hydrocarbon numbers of C11 or greater.
- (5) "Soil" means any unconsolidated geologic materials including, but not limited to, clay, loam, loess, silt, sand, gravel, tills or any combination of these materials.

340-122-315 Scope and Applicability

- (1) These rules shall apply to the cleanup of releases from UST systems containing motor fuel and heating oil, and shall take effect March 1, 1991.
- (2) Matrix cleanup levels established by these rules are not applicable to the cleanup of petroleum releases which, due to their magnitude or complexity, are ordered by the Director to be conducted under OAR 340-122-010 through OAR 340-122-110.

340-122-320 Soil Cleanup Options

When using the numeric soil cleanup standards specified in these rules, the owner, permittee, or responsible person has the option of:

- (1) Cleaning up the site as specified in these rules to the numeric soil cleanup standard defined as Level 1 in 340-122-335(2); or
- (2) Evaluating the site as specified in 340-122-325 to determine the required Matrix cleanup level, and then cleaning up the site as specified in these rules to the numeric soil cleanup standard defined by that Matrix cleanup level.

340-122-325 Evaluation of Matrix Cleanup Level

- (1) In order to determine a specific Matrix cleanup level, the site must first be evaluated by:
 - (a) Assigning a numerical score to each of the five site-specific parameters in 340-122-330(1)-(5); and
 - (b) Totaling the parameter scores to arrive at the Matrix Score.
- (2) The Matrix Score shall then be used to select the appropriate numeric soil cleanup standard as specified in 340-122-335.

340-122-330 Evaluation Parameters

The site-specific parameters are to be scored as specified in this section. If any of the parameters in 340-122-330(1)-(5) is unknown, that parameter shall be given a score of 10.

- (1) Depth to Groundwater: This is the vertical distance (rounded to the nearest foot) from the surface of the ground to the highest seasonal elevation of the saturated zone.

The score for this parameter is:

>100 feet	1
51 -100 feet	4
25 - 50 feet	7
< 25 feet	10

- (2) Mean Annual Precipitation: This measurement may be obtained from the nearest appropriate weather station.

The score for this parameter is:

< 20 inches	1
20 - <u>45</u> [40] inches	5
> <u>45</u> [40] inches	10

(3) Native Soil or Rock Type:

The score for this parameter is:

- | | |
|--|----|
| Low permeability materials such as clays, <u>silty clays</u> , compact tills, shales, and unfractured metamorphic and igneous rocks. | 1 |
| Moderate permeability materials such as sandy loams, loamy sands, [<u>silty clays</u> ,] and clay loams; moderately permeable limestones, dolomites and sandstones; and moderately fractured igneous and metamorphic rocks. | 5 |
| High permeability materials such as fine and silty sands, sands and gravels, highly fractured igneous and metamorphic rocks, permeable basalts and lavas, and karst limestones and dolomites. | 10 |

(4) Sensitivity of the Uppermost Aquifer: Due to the uncertainties involved in the Matrix evaluation process, this factor is included to add an extra margin of safety in situations where critical aquifers have the potential to be affected.

The score for this parameter is:

- | | |
|---|----|
| Unusable aquifer, either due to water quality conditions such as salinity, etc.; or due to hydrologic conditions such as extremely low yield. | 1 |
| Potable aquifer not currently used for drinking water, but the quality is such that it could be used for drinking water. | 4 |
| Potable aquifer currently used for drinking water; alternate unthreatened sources of water readily available. | 7 |
| Sole source aquifer currently used for drinking water; there are no alternate unthreatened sources of water readily available. | 10 |

(5) Potential Receptors: The score for potential receptors is based on both the distance to the nearest well and also the number of people at risk. Each of these two components is to be evaluated using the descriptors defined in this section.

(a) The distance to the nearest well is measured from the area of contamination to the nearest well that draws water from the aquifer of concern. If a closer well exists which is known to draw water from a deeper aquifer, but there is no evidence that the deeper aquifer is completely isolated from the contaminated aquifer, then the distance must be measured to the closer, deeper well.

The distance descriptors are:

Near	< 1/2 mile
Medium	1/2 - 2[3] miles
Far	> 2[3] miles

(b) The number of people at risk is to include all people served by drinking water wells which are located within 2[3] miles of the contaminated area. For public wells, count the number of users listed with the Oregon Health Division, Drinking Water Systems Section. For private wells, assume 3 residents per well. In lieu of a door-to-door survey of private wells, it may be assumed that there is one well per residence. [This number is to include not only residents of the area, but also others who regularly enter the area such as employees in restaurants, motels, or campgrounds.]

The number descriptors are:

Many	> 3000
Medium	100 - 3000
Few	< 100

(c) The score for this parameter is taken from the combination of the two descriptors using the following grid:

	Many	Medium	Few
Near	10	10	5
Medium	10	5	1
Far	5	1	1

(6) The Matrix Score for a site is the sum of the five parameter scores in 340-122-330(1)-(5).

340-122-335 Numeric Soil Cleanup Standards

(1) If the Matrix Score evaluated in 340-122-330 is:

(a) Greater than 40, the site must be cleaned up to at least the Level 1 standards listed in 340-122-335(2).

(b) From 25 to 40, inclusive, the site must be cleaned up to at least the Level 2 standards listed in 340-122-335(2).

(c) Less than 25, the site must be cleaned up to at least the Level 3 standards listed in 340-122-335(2).

(2) The following table contains the required numeric soil cleanup standards based on the level of Total Petroleum Hydrocarbons (TPH) as measured by the analytical methods specified in 340-122-350.

	Level 1	Level 2	Level 3
TPH (Gasoline)	40 ppm	80 ppm	130 ppm
TPH (Diesel)	100 ppm	500 ppm	1000 ppm

(3) The Hydrocarbon Identification (HCID) test specified in 340-122-350(3) shall be used to identify the petroleum product contamination present at the site. The results of the HCID test shall be used to determine which analytical method or methods are required for verifying compliance with the Matrix cleanup levels. [The Gasoline TPH value shall be the target cleanup level for all sites unless a hydrocarbon identification (HCID) test clearly shows that the contaminant is Diesel or another non-gasoline fraction hydrocarbon as defined in 340-122-310(4). Under these conditions, the Diesel TPH value may be used as the target cleanup level.] At locations where the soil is contaminated with both gasoline and diesel or other non-gasoline fraction hydrocarbons, the gasoline contamination shall be shown to meet the appropriate gasoline cleanup standard and the diesel or other non-gasoline fraction contamination shall be shown to meet the appropriate diesel cleanup standard.

340-122-340 Sample Number and Location

The collection and analysis of soil samples is required to verify that a site meets the requirements of these rules. These samples must represent the soils remaining at the site and shall be collected after contaminated soils have been removed or remediated. Each sample must represent a single location; composite samples are not allowed. The number of soil samples required for a given site and the location at which the samples are to be collected are as follows:

- (1) A minimum of two soil samples must be collected from the site:
 - (a) These samples must be taken from those areas where obviously stained or contaminated soils have been identified and removed or remediated.
 - (b) If there are two or more distinct areas of soil contamination, then a minimum of one sample must be collected from each of these areas.

(c) The samples must be taken from within the first foot of native soil directly beneath the areas where the contaminated soil has been removed, or from within the area where in-situ remediation has taken place.

(d) A field instrument sensitive to volatile organic compounds may be used to aid in identifying areas that should be sampled, but the field data may not be substituted for laboratory analyses of the soil samples.

(e) If there are no areas of obvious contamination, then samples must be collected from the locations specified in subsections (2) to (5) of this section which are most appropriate for the situation.

(f) If it is being proposed that a pocket of contamination be left in place pursuant to 340-122-355(4), then sufficient samples shall be collected from the site in order to estimate the extent, volume and level of contamination in this pocket.

(2) If water is not present in the tank pit:

(a) Soil samples must be collected from the native soils located no more than two feet beneath the tank pit in areas where contamination is most likely to be found.

(b) For the removal of an individual tank, samples must be collected from beneath both ends of the tank. For the removal of multiple tanks from the same pit, a minimum of one sample must be collected for each 150 [250] square feet of area in the pit.

(3) In situations where leaks have been found in the piping, or in which released product has preferentially followed the fill around the piping, samples are to be collected from the native soils directly beneath the areas where obvious contamination has been removed. Samples should be collected at 20 lateral foot intervals.

(4) If water is present in the tank pit, regardless of whether obvious contamination is or is not present, the Department must be notified of this fact. The owner, permittee, or responsible person shall then either continue the investigation under OAR 340-122-240, or do the following:

(a) Purge the water from the tank pit and dispose of it in accordance with all currently applicable requirements. This may include obtaining appropriate permits from the Department or local jurisdictions.

(b) If the pit remains dry for 24 hours, testing and cleanup may proceed according to the applicable sections of these soil cleanup rules. If water returns to the pit in less than 24 hours, a determination must be made as to whether contamination is likely to have affected the groundwater outside of the confines of the pit as indicated below:

(A) For the removal of an individual tank, soil samples are to be collected from the walls of the excavation next to the ends of the tank at the original soil/water interface. For the removal of multiple tanks from the same pit, a soil sample is to be collected from each of the four walls of the excavation at the original soil/water interface.

(B) At least one sample must be taken of the water in the pit regardless of whether obvious contamination is or is not present. This sample shall be collected as required by 340-122-345(4).

(C) The soil samples must be analyzed for TPH and benzene, toluene, ethylbenzene and xylenes (BTEX), and the water sample must be analyzed for BTEX. These analyses must be made using the methods specified in 340-122-350. The results of these analyses must be submitted to the Department.

(D) The Department shall then determine how the cleanup shall proceed as specified in 340-122-355(3).

(5) In situations where tanks and lines are to remain in place in areas of suspected contamination, the owner, permittee or responsible person shall submit a specific soil sampling plan to the Department for its approval.

(6) In situations where TPH analysis indicates that contamination is present due to a release from a waste oil tank, at least one sample of the waste oil contaminated soils must be collected and analyzed for PCBs, volatile chlorinated solvents, volatile aromatic solvents, and leachable metals using the analytical methods specified in 340-122-350.

340-122-345 Sample Collection Methods

(1) The following information must be kept during the sampling events:

(a) A sketch of the site must be made which clearly shows all of the sample locations and identifies each location with a unique sample identification code.

(b) Each soil and water sample must be clearly labeled with its sample identification code. A written record must be maintained which includes, but is not limited to: the date, time and location of the sample collection; the name of the person collecting the sample; how the sample was collected; and any unusual or unexpected problems encountered during the sample collection which may have affected the sample integrity.

(c) Formal chain-of-custody records must be maintained for each sample.

(2) If soil samples cannot be safely collected from the excavation, a backhoe may be used to remove a bucket of native soil from each of the sample areas. The soil is to be brought rapidly to the surface where samples are to be immediately taken from the soil in the bucket.

(3) The following procedures must be used for the collection of soil samples from open pits or trenches:

(a) Just prior to collecting each soil sample, approximately three inches of soil must be rapidly scraped away from the surface of the sample location.

(b) To minimize the loss of volatile materials, it is recommended that samples be taken using a driven-tube type sampler. A clean brass or stainless steel tube of at least one inch in diameter and three inches in length may be used for this purpose. The tube should be driven into the soil with a suitable instrument such as a wooden mallet or hammer.

(c) The ends of the sample-filled tube must be immediately covered with clean aluminum foil. The foil must be held in place by plastic end caps which are then sealed onto the tube with a suitable tape.

(d) Alternatively, samples may be taken with a minimum amount of disturbance and packed immediately in a clean wide-mouth glass jar leaving as little headspace as possible. The jar must then be immediately sealed with a teflon-lined screw cap.

(e) After the samples are properly sealed, they are to be immediately placed on ice and maintained at a temperature of no greater than 4 °C (39 °F) until being prepared for analysis by the laboratory. All samples must be analyzed within 14 days of collection.

(4) The following procedures must be used for the collection of water samples from the tank pit:

(a) After the water has been purged from the pit in accordance with 340-122-340(4)(a), samples shall be collected as soon as sufficient water has returned to the pit to allow representative sampling [it is not necessary to wait for the pit to refill to its original depth, only for sufficient water to return to properly use the sampling device].

(b) Samples are to be taken with a device designed to reduce the loss of volatile components. A bailer with a sampling port is suitable for this purpose.

(c) The water is to be transferred into [a] two identical glass vials with as little agitation as possible and immediately sealed with [a] teflon-lined caps. The vials must be filled completely so that no air bubbles remain trapped inside.

(d) After the samples are properly sealed, they are to be immediately placed on ice and maintained at a temperature of no greater than 4 °C (39 °F) until being prepared for analysis in the laboratory. All samples must be analyzed within 14 days of collection.

(5) The Department may approve alternative sampling methods which have been clearly shown to be at least as effective with respect to minimizing the loss of volatile materials during sampling and storage as the methods listed in 340-122-345(1)-(4).

340-122-350 Required Analytical Methods

The following methods are to be used for the analysis of the soil and water samples, as applicable:

(1) Total Petroleum Hydrocarbons (TPH) for Gasoline shall be analyzed by means of DEQ Laboratory Method TPH-G [EPA Method 418.1 using the sample extraction and preparation technique specified by the Department].

(2) Total Petroleum Hydrocarbons (TPH) for Diesel and other non-gasoline fraction hydrocarbons shall be analyzed by means of either EPA Method 418.1 using the sample extraction and preparation technique specified by the Department, or by means of the DEQ Laboratory Method TPH-D.

(3)[(2)] Hydrocarbon Identification (HCID) shall be determined by means of DEQ Laboratory Method TPH-HCID. [made, using the extract from EPA Method 418.1, by a gas chromatographic method capable of identifying, in terms of the number of carbon atoms, the range of hydrocarbons present in the sample.]

(4)[(3)] Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) shall be analyzed by means of EPA Methods documented in SW-846 (Test Methods for Evaluating Solid Waste) [5030 in conjunction with either EPA Method 8020 or EPA Method 8240].

(5) Waste oil contaminated soils shall be analyzed for volatile chlorinated solvents, volatile aromatic solvents, and PCBs by EPA Methods documented in SW-846 (Test Methods for Evaluating Solid Waste); for leachable metals by EPA Toxicity Characteristic Leaching Procedure (TCLP); and for TPH by EPA Method 418.1 using the sample extraction and preparation technique specified by the Department.

(6)[(4)] The Department may approve alternative analytical methods which have been clearly shown to be applicable for the compounds of interest and which have detection limits at least as low the methods listed in 340-122-350(1)-(5)[(3)].

(1) The results of the soil analyses shall be interpreted as follows:

(a) If a sample has a concentration less than or equal to the required matrix level, the area represented by that sample shall have met the requirements of these rules.

(b) If a sample has a concentration exceeding the required matrix level by more than 10%, the area represented by that sample has not met the requirements of these rules. Further remediation, sampling and testing is necessary until the required level is attained.

(c) If a sample has a concentration exceeding the required matrix level by less than 10%, the responsible person has the option of collecting and analyzing two more samples from the same area and using the average of all three to determine if the standard has been met; or further remediating the area and then collecting and analyzing one new sample and using the concentration of the new sample to determine if the standard has been met; or the Department has the option of approving the cleanup with no further action, requiring that more samples be taken, or requiring further cleanup and subsequent sampling. Such a decision shall be made based upon the analytical results of other samples from the site, best professional judgement made from a visit to the site, the apparent extent of contamination, and other site specific factors deemed appropriate.

(2) A site shall be considered sufficiently clean when all of the sampled areas have concentrations less than or equal to the required matrix cleanup level, and when the possibility of any human contact with the residual soil contamination remaining on the site has been precluded.

(3) If water is present in the tank pit, the Department shall decide if cleanup may proceed under these rules or if further action must be taken such as the installation of monitoring wells, or the development of a Corrective Action Plan under OAR 340-122-250. This decision shall be based on, but is not limited to:

(a) The apparent extent of the contamination;

(b) The likelihood that groundwater contamination exists beyond the boundaries of the tank pit;

(c) The likelihood that the BTEX concentrations in the water and the BTEX and TPH concentrations in the soil indicate a situation which poses a threat to public health, safety, welfare and the environment; and

(d) Any other site-specific factors deemed appropriate by the Department.

(4) If a pocket of contamination exceeding the required Matrix cleanup level is located under a building or other structure where further removal would endanger the structure or be prohibitively expensive, the Department must be notified of this situation. The Director shall then decide whether such contamination can remain without threatening human health, safety, and welfare and the environment. If not, the Department shall require further remediation.

(5) For waste oil contaminated sites, all detectable levels of volatile chlorinated solvents, volatile aromatic hydrocarbons, PCBs, or leachable metals shall be reported to the Department as soon as these results are known. The Department shall then decide whether the cleanup shall continue under these rules or whether further investigation is warranted under 340-122-205 through 260 or 340-122-010 through 110.

340-122-360 Reporting Requirements

(1) Within 60 days of completing work at the site, or within another reasonable period of time determined by the Department, an [An] owner, permittee, or responsible person shall submit a final report to the Department for a site that has been cleaned up according to these rules, which report shall contain, but is not limited to:

(a) A narrative section describing how the release was discovered, what initial measures were taken to control the spread of contamination, what was observed when the tank was removed from the pit (odor, sheen, stained soils, holes in tank or lines, etc.), how the cleanup was done, how much contaminated soil was removed, what was done with the contaminated soil and the decommissioned tank and piping, who collected the samples, how the samples were collected, stored and shipped to the lab, and any problems encountered during the cleanup or sample collection process [A list of the individual parameter and factor scores used to arrive at the Matrix score for the site];

(b) Properly filled out copies of the Department's Matrix Checklist and Matrix Score Sheet;

(c)[(b)] All of the sampling documentation required in 340-122-345[(4)];

(d)[(c)] Copies of the laboratory reports and chain of custody forms for all soil and water [of the] samples collected at the site[, including samples that were too high and which required further action under 340-122-355(1)];

(e) Copies of all receipts or permits related to the disposal of free product, contaminated soil, contaminated water, and decommissioned tanks and piping;

(f)[(d)] A brief explanation of what was done in the case of any samples that initially exceeded the required cleanup levels;

(g)[(e)] A summary of the concentrations measured in the final round of samples from each sampling location;

[(f) An explanation of what was done with any contaminated soil that was removed from the site;]

(h)[(g)] In cases where groundwater was present in the pit, a summary of the data collected and the decision made by the Department under 340-122-355(3) [.]i

(i)[(h)] In cases where pockets of excess contamination remain on site in accordance with 340-122-355(4), a description of this contamination including location, approximate volume and concentration[.]i and

(j) In cases where waste oil contamination required extra sampling and analyses as specified in 340-122-340(6), a summary of the data collected and, if appropriate, the decision made by the Department under 340-122-355(5).

(2) The owner, permittee, or responsible person shall retain a copy of the report submitted to the Department under this section until the time of first transfer of the property, plus 10 years.

(3) Within 120 days after receipt of the final report under this section, the Department shall:

(a) Provide the person submitting the report a written statement that, based upon information contained in the report, the site has been cleaned up in accordance with OAR 340-122-305[301] through 340-122-360; or

(b) Request the owner, permittee, or responsible person to submit additional information or perform further investigation; or

(c) Request the owner, permittee, or responsible person to develop and submit a corrective action plan in accordance with OAR 340-122-250.

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to adopt and amend rules.

(1) Legal Authority

ORS 465.400 (1) authorizes the Environmental Quality Commission to adopt rules, in accordance with the applicable provision of ORS 183.310 to 183.550, necessary to carry out the provisions of ORS 465.200 to 465.900. ORS 466.720(1) directs the Commission to adopt a state-wide underground storage tank program. ORS 466.745(1) authorizes the Commission to adopt rules necessary to carry out the provisions of 466.705 to 466.835 and 466.895. In addition, ORS 468.020 authorizes the Commission to adopt such rules and standards as it considers necessary and proper in performing the functions vested by law in the Commission.

(2) Need for the Rule

ORS 465.400(2)(a) requires the Commission to adopt rules establishing the levels, factors, criteria or other provisions for the degree of cleanup including the control of further releases of a hazardous substance, and the selection of the remedial actions necessary to assure protection of the public health, safety, welfare and the environment.

ORS 466.745(1)(e)(j)(k) and (L) authorize the Commission to adopt rules establishing requirements for reporting a release from an underground storage tank, reporting corrective action taken in response to a release, and any other requirements necessary to carry out the provisions of ORS 466.705 to 466.835 and 466.895. The Environmental Quality Commission, at its meeting on July 21, 1989, adopted the Soil Matrix Rules and concurred with the Department's recommendation to report back to the Commission on the implementation of the matrix rules.

FISCAL AND ECONOMIC IMPACT STATEMENT

The use of the Soil Matrix Rules has resulted in significant, but indeterminable, savings. The owner, permittee, or responsible person can use this more expeditious approach instead of performing more extensive and costly procedures under other subsections of the UST Cleanup Rules or the Remedial Action Rules. Those more extensive approaches are not necessary for relatively simple soil contamination cleanups.

The proposed amendments could increase the cost for a matrix cleanup of a gasoline release by approximately \$200 to \$400 per site. This is a one-time cost and is due primarily to the increased requirements of the proposed analytical method. This applies primarily to gasoline contamination because the previous method (EPA 418.1) is still an acceptable approach for evaluating diesel releases.

Given the average cost of a matrix cleanup (\$5,000 to \$15,000), this is a minor increase in cost for the benefits received. The primary benefits are that the site owner will obtain more accurate information on the level of contamination/cleanliness of a site and the Department can close out sites with more confidence in the cleanup numbers. It is impossible to quantify these and other benefits due to the broad spectrum of cleanup approaches being used.

Discussions with private labs have indicated that there are no significant start-up costs associated with using the proposed analytical method.

A small portion (2-4%) of cleanups are paid for through the Federal Leaking Underground Storage Tank Trust Fund for releases with no viable responsible person. The balance (96-98%) are paid by the liable person(s). Close to a majority of these costs may be borne by small businesses which own gas stations. Local and state agencies, which operate gasoline stations for fleets or otherwise own underground storage tanks, will bear some cleanup costs. Local jurisdictions may also become owners of underground storage tanks through right-of-way excavations, property transactions and tax foreclosures.

A CHANCE TO COMMENT ON...

Proposed Amendments to Soil Matrix Rules for Underground Storage Tank Cleanups (OAR 340-122-305 through 340-122-360).

Hearing Dates: October 23, 1990
October 24, 1990
October 25, 1990
October 30, 1990

Comments Due: November 2, 1990

WHO IS AFFECTED: The proposed amendments will affect owners, permittees and operators of regulated underground storage tanks containing motor fuel and heating oil. Also affected may be owners of unregulated tanks containing these products.

WHAT IS PROPOSED: The Department of Environmental Quality is proposing amendments to the Soil Matrix Rules, which were passed in July, 1989. The proposed amendments change the analytical method, sampling methodology and reporting requirements, but do not change the actual numeric cleanup standards.

WHAT ARE THE HIGHLIGHTS: The proposed rules amendments are designed to improve the reliability of the analytical methods and sampling methodology, as well as clarify reporting requirements which the regulated community must meet.

The most important change is in the analytical method used to determine the level of gasoline contamination at a site. The proposed method will eliminate problems of background interference which were evident in the current analytical method.

HOW TO COMMENT: Public Hearing Schedule

Portland
October 23, 1990
7:00 - 9:00 p.m.
Multnomah County
Public Library - Rm. B
801 S.W. 10th

Pendleton
October 24, 1990
7:00 - 9:00 p.m.
Blue Mtn. Comm. College
Pioneer Building
Room 12 (basement)
2411 N.W. Carden



811 S.W. 6th Avenue
Portland, OR 97204

11/1/86

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

**HOW TO
COMMENT:
(Cont.)**

Bend

October 25, 1990
7:00 - 9:00 p.m.
Central Oregon
Community College
Deschutes Bldg.- Rm.9
2600 N.W. College Way

Eugene

October 30, 1990
7:00 - 9:00 p.m.
Lane Community College
Health Bldg. Room 103
4000 E. 30th Avenue

Medford

October 30, 1990
7:00 - 9:00 p.m.
Bureau of Land Management
Oregon Room
3040 Biddle Road

Written comments should be sent to:

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97204

The comment period will end Friday, November 2, 1990. All comments must be received at the Department no later than 5:00 p.m. on that date.

For more information or copies of the proposed rules, contact Alan Kiphut at (503) 229-6834 or toll-free at 1-800-452-4011.

**WHAT IS THE
NEXT STEP:**

After public testimony has been received and evaluated, the proposed amendments will be revised as appropriate and presented to the Environmental Quality Commission in December, 1990. The Commission may adopt the Department's recommendation, amend the Department's recommendation, or take no action.

Attachment E
Agenda Item
12/14/90 EQC Meeting

HEARINGS OFFICER REPORTS

Summary of Procedures

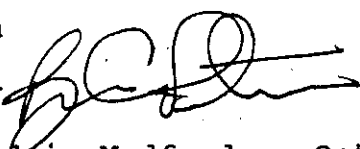
Public Hearings were held as shown in Attachment D.

The purpose of the hearings was to receive testimony on proposed amendments to the Soil Matrix Rules for underground storage tank cleanups. Public Notice was given prior to the hearings. The opportunity was provided for the public to present oral and/or written testimony at the hearings. Written testimony was also accepted by the Department until 5:00 p.m., November 2, 1990.

Included in this attachment are the Hearings Officer Reports for the hearings held, as well as copies of written testimony submitted to the Department.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Byron Peterson, Hearings Officer 

SUBJECT: Report on the Public Hearing held in Medford on October 30, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-122-360).

List of Witnesses

5 people attended the hearing.
2 people gave oral testimony.
no written testimony was submitted.

The people testifying were:

Mike Hawkins, Hawk Oil Company
John W.T. Neilson, Neilson Research Corporation

Summary of Comments

1. **Mike Hawkins.** Mr. Hawkins expressed concern that DEQ was regulating waste oil tanks. He stated that EPA was not regulating waste oil tanks because more than half of the American public changes their own oil and it just goes down the drain. He felt DEQ should be encouraging people to take their waste oil to gas stations rather than regulating waste oil tanks at the station. His understanding is that the new regulations will add about \$700 in soil testing costs when the tank is replaced. He stated that these methods were suspect when the matrix program was first being looked at last year and expressed concern about their accuracy.
2. **John W.T. Neilson.** Mr. Neilson had specific comments on portions of the rule revisions and the analytical methods description. He quoted the section on page A10 [rule revisions: 340-122-350(2)] which talked about using 418.1 or TPH-D for analyzing diesel contamination, and stated that this was confusing because the new analytical methods appear to be replacing 418.1 with TPH-D, but this section indicates you could use either method. He also commented on the description of the methodology for TPH-G on page 4 (analytical methods) and pointed out that the methodology makes no reference to preparation of benzene/naphthalene standards. He felt this needed to be addressed. Mr. Neilson also pointed out that in the analysis procedure for lube oils and Bunker C, it requires putting 3 grams of silica gel and a stir bar into a 20 ml volumetric flask. He stated that this much material would not fit in that size container and the wording needed to be changed.

Date: 11-1-90 3:01pm
From: Byron Peterson:SWR:DEQ
To: Alan Kiphut:ECD
cc: Byron Peterson:SWR:DEQ
Subj: Matrix Comments

Al,

I had a comment for the matrix revision. That is we need to discuss the requirement of having a discharge permit for allowing water from a tank pit to go to public waters. You know the section that says pump out the water and see if it recovers back in the pit and then sample. Before they can do this they have to sample the water before they can discharge it. If they have detectable levels they then have to get either a special letter of authorization or an NPDES permit. This can cause large delays in tank replacements, etc. People should be made aware of this before they start work.

If you have ? give me a call.

Byron

MEMORANDUM

TO: Environmental Quality Commission

FROM: Mary McGowan, Hearings Officer *M.M.*

SUBJECT: Report on the Public Hearing held in Pendleton on October 24, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-340-122-360).

List of Witnesses

2 people attended the hearing.
Neither of them gave oral testimony.
No written testimony was submitted.

Summary of Comments

No testimony was presented.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Alan Kiphut, Hearings Officer *A.K.*

SUBJECT: Report on the Public Hearing held in Bend on October 25, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-122-360).

List of Witnesses

No one attended the hearing.
There was no oral testimony.
No written testimony was submitted.

Summary of Comments

No testimony was presented.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Rick Silverman, Hearings Officer *R.S.*

SUBJECT: Report on the Public Hearing held in Eugene on October 30, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-122-360).

List of Witnesses

8 people attended the hearing.
1 person gave oral testimony.
no written testimony was submitted.

The person testifying was:

Michael L. Armstrong, Pacific Petroleum Corporation

Summary of Comments

Michael L. Armstrong. Mr. Armstrong commented that it is important to keep the matrix approach as simple as possible and be able to use it as a fast-track approach. He stated that station owners are concerned about the cost/benefit ratio of any changes to the rules, as well as how the time frame for cleaning up a site through the matrix rules is affected. He stated that owners don't want these factors negatively impacted.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Andree Pollock, Hearings Officer *AP*

SUBJECT: Report on the Public Hearing held in Portland on October 23, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-122-360).

List of Witnesses

13 people attended the hearing.
4 people gave oral testimony.
1 person submitted written testimony.

The people testifying were:

G.C. Alexander, Newberg, Oregon
Colin Elliott, Columbia Analytical Services
Douglas Hunt, Carson Oil Company
Kent Patton, NET Pacific, Inc.

Written testimony was submitted by Kent Patton.

Summary of Comments

1. G.C. Alexander. Mr. Alexander had not seen the proposed revisions and mistakenly thought that a private contractor had prepared the analytical methods description and would have an unfair advantage over other contractors. He also had a question on the TPH analysis which indicated that he was not familiar with the rules. I suggested that his questions would be answered by reading the proposed rules and listening to the other testimony.
2. Colin Elliott. Mr. Elliott stated that he felt the revisions needed additional clarification before final adoption. Specifically, he asked if the HCID tests have to be performed if the client is certain that only gasoline is present. He also thought the section on using 418.1 for diesel analysis needed additional clarification, as did the situation where you have samples with a mixture of gas/diesel. He also pointed out the identification analysis for gasoline appears to be different from the actual gas analysis.

3. Douglas Hunt. Mr. Hunt asked if infra-red (IR) analysis would still be used and, if so, are there new limits? He also asked if IR could be used for hydrocarbon ID.
4. Kent Patton. Mr. Patton also submitted written testimony at this hearing. His comments were very specifically oriented toward the analytical methods description. He questioned the stipulation in TPH-G which calls for sonicating for 14 minutes. He stated that Method 5030 from EPA SW 846 calls for a 2 minute shake. He feels that the 14 minute sonication could generate heat and result in losses of BTEX. He also pointed out that we reference SW 846 for BTEX analysis in our rules and we ought to be consistent in the details of the process.

In reference to waste oil/lube oil analysis, he recommended that we use freon extraction instead of methane chlorine because 1) freon can be recycled and methane chlorine will have to be incinerated and 2) freon extraction is used by others (WA, CA, EPA) and, since labs do work for other states, it would be helpful if everyone was using the same approach. This process in Oregon could end up costing the client more.

In the diesel area, we allow either 418.1 or TPH-D to be used. He suggested that we stipulate the use of 418.1 for waste oil and TPH-D for diesel, kerosene, etc.



October 30, 1990

Mike Anderson
Oregon DEQ
811 S.W. 6th Ave.
Portland, OR 97204

Re: Proposed Methods for Hydrocarbon Analysis

Dear Mike:

Enclosed is a summary of questions and comments concerning the proposed methods for hydrocarbon analysis. The comments from the chemists in our lab, overall, have been positive. We believe the new methods will give more accurate results.

The attached list of questions concern clarification of how to interpret the new rules in regards to the choice of methods in certain situations and possible method modifications.

I hope you will find these helpful in defining the final version of these methods.

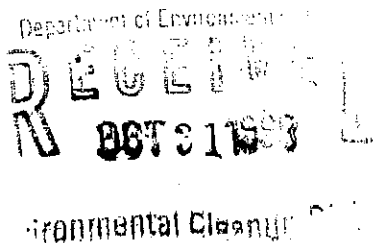
Respectfully submitted,

Columbia Analytical Services, Inc.

A handwritten signature in cursive script that reads "Colin Elliott".

Colin B. Elliott
Senior Project Chemist

CBE/mbm



**SUMMARY OF QUESTIONS ON THE
PROPOSED HYDROCARBON ANALYSIS PROCEDURES**

1. Can the HCID be skipped and only TPH-G be ran if it is certain that only gasoline may be present?
2. The matrix rules state that diesel may be quantitated by Method 418.1 or by TPH-D while the methods flow chart indicates only TPH-D is suitable for diesel. Can 418.1 be used for diesel quantitation?
3. How do we deal with samples that are mixtures of gasoline and diesel, as indicated by the HCID results?
4. If the HCID identifies gasoline by a pattern match to the gas standard but it has weathered so that no peaks are detectable before decane, can and should it be ran and quantitated by TPH-D?
5. It may be important to define the sensitivity requirements for the HCID. It is necessary that the HCID be able to detect at least 40 ppm of gasoline and 100 ppm diesel.
6. How should the final results for soils be reported? On a dry weight or on "as received" basis?
7. By HCID analysis, gasoline is indicated by detecting peaks from hexane thru decane. By TPH-G, gasoline is quantitated by the area summary from Benzene to Naphthalene.

Would it be helpful if the two marker compounds were the same for both the HCID and the TPH-G?

8. Can an FID detector be used in place of the PID for method TPH-G?
9. Can the current EPA version of 418.1 be used in place of the DEQ 418.1 method?

There is some concern about effectively exchanging the solvents from methylene chloride to Freon 113. If not all of the methylene chloride is removed, a false positive response will occur.

Kent D. Patton
NET Pacific, Inc.
10070 SW Denney Rd.
Beaverton, OR 97005
(503) 644-7905
FAX 503-644-7696

October 23, 1990

Mr. Alan Kiphut
Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97204

Dear Mr. Kiphut,

I would like to make several comments and propose a few changes of the Proposed Amendments of Soil Matrix Rules for Underground Storage Tank Cleanups (OAR 340-122-350). I am the Field Services Manager for NET Pacific, Inc. and have a particular interest in the proposed required analytical methods.

I am pleased to see that the DEQ has chosen to pursue greater distinction between petroleum products by extensive use of gas chromatography. The 418.1 modified for soils is quite limited in the information it provides.

1. DEQ Laboratory Method TPH-G

The DEQ sample extraction procedure instructs one to, "sonicate the extraction mixture for 15 minutes and allow the methanol to separate". The specifications for the sonicator and output are not stated so I assume the method is calling for a sonic bath vs sonic horn. Sonic baths generate heat due to the high energy released during cavitation. This heat can build up in the water and over 14 minutes warm the methanol in the extraction VOA's. The BTEX and short chain aliphatics can be lost under these conditions to the head space above the methanol. The sonic bath has other disadvantages such as "dead spots" that can lead to differences in extraction efficiency.

I suggest that the DEQ adopt the extraction procedure from SW-846 REV 1 of Dec. 1987 method 5030, section 7.3.3.2 the High Level Method. In section 7.3.3.2.2 shaking the sample for two minutes in methanol is specified. The mass of soil and volume of solvent could be adapted to the DEQ method. Using 5030 would make this method consistent with proposed method (4) for BTEX which specifies use of SW-846.

extraction, weigh 5-10 g of the sample into a tared crucible. Determine the percent moisture by drying overnight at 105°C. Allow to cool in a desiccator before weighing:

$$\% \text{ moisture} = \frac{\text{g of sample} - \text{g of dry sample}}{\text{g of sample}} \times 100$$

7.3.3.1.6 Add the spiked water to the purge device, which contains the weighed amount of sample, and connect the device to the purge-and-trap system.

NOTE: Prior to the attachment of the purge device, Steps 7.3.3.1.4 and 7.3.3.1.6 must be performed rapidly and without interruption to avoid loss of volatile organics. These steps must be performed in a laboratory free of solvent fumes.

7.3.3.1.7 Heat the sample to 40°C ± 1°C (Methods 8010 and 8020) or to 85°C ± 2°C (Methods 8015 and 8030) and purge the sample for the time shown in Table 1.

7.3.3.1.8 Proceed with the analysis as outlined in Steps 7.3.1.11-7.3.1.15. Use 5 mL of the same water as in the reagent blank. If saturated peaks occurred or would occur if a 1-g sample were analyzed, the high-level method must be followed.

7.3.3.2 High-level method - The method is based on extracting the sediment/soil with methanol. A waste sample is either extracted or diluted, depending on its solubility in methanol. Wastes (i.e. petroleum and coke wastes) that are insoluble in methanol are diluted with reagent tetraglyme or possibly polyethylene glycol (PEG). An aliquot of the extract is added to water containing surrogate and, if applicable, internal and matrix spiking standards. This is purged at the temperatures indicated in Table 1. All samples with an expected concentration of > 1.0 mg/kg should be analyzed by this method.

7.3.3.2.1 The sample (for volatile organics) consists of the entire contents of the sample container. Do not discard any supernatant liquids. Mix the contents of the sample container with a narrow metal spatula. For sediment/soil and solid wastes that are insoluble in methanol, weigh 4 g (wet weight) of sample into a tared 20-mL vial. Use a top-loading balance. Note and record the actual weight to 0.1 gram and determine the percent moisture of the sample using the procedure in Step 7.3.3.1.5. For waste that is soluble in methanol, tetraglyme, or PEG, weigh 1 g (wet weight) into a tared scintillation vial or culture tube or a 10-mL volumetric flask. (If a vial or tube is used, it must be calibrated prior to use. Pipet 10.0 mL of solvent into the vial and mark the bottom of the meniscus. Discard this solvent.)

7.3.3.2.2 Quickly add 9.0 mL of appropriate solvent; then add 1.0 mL of the surrogate spiking solution to the vial. Cap and shake for 2 minutes.

NOTE: Steps 7.3.3.2.1 and 7.3.3.2.2 must be performed rapidly and without interruption to avoid loss of volatile organics. These steps must be performed in a laboratory free from solvent fumes.

7.3.3.2.3 Pipet approximately 1 mL of the extract to a GC vial for storage, using a disposable pipet. The remainder may be disposed of. Transfer approximately 1 mL of appropriate solvent to a separate GC vial for use as the method blank for each set of samples. These extracts may be stored at 4°C in the dark, prior to analysis.

7.3.3.2.4 The GC system should be set up as in Section 7.0 of the specific determinative method. This should be done prior to the addition of the solvent extract to water.

7.3.3.2.5 Table 2 can be used to determine the volume of solvent extract to add to the 5 mL of water for analysis. If a screening procedure was followed, use the estimated concentration to determine the appropriate volume. Otherwise, estimate the concentration range of the sample from the low-level analysis to determine the appropriate volume. If the sample was submitted as a high-level sample, start with 100 μ L. All dilutions must keep the response of the major constituents (previously saturated peaks) in the upper half of the linear range of the curve.

7.3.3.2.6 Remove the plunger from a 5.0-mL Luerlock type syringe equipped with a syringe valve and fill until overflowing with water. Replace the plunger and compress the water to vent trapped air. Adjust the volume to 4.9 mL. Pull the plunger back to 5.0 mL to allow volume for the addition of the sample extract and of standards. Add 10 μ L of internal standard solution. Also add the volume of solvent extract determined in Step 7.3.3.2.5 and a volume of extraction or dissolution solvent to total 100 μ L (excluding solvent in standards).

7.3.3.2.7 Attach the syringe-syringe valve assembly to the syringe valve on the purging device. Open the syringe valve and inject the water/solvent sample into the purging chamber.

7.3.3.2.8 Proceed with the analysis as outlined in the specific determinative method. Analyze all reagent blanks on the same instrument as that used for the samples. The standards and blanks should also contain 100 μ L of solvent to simulate the sample conditions.

7.3.3.2.9 For a matrix spike in the high-level sediment/soil samples, add 8.0 mL of methanol, 1.0 mL of surrogate spike solution and 1.0 mL of matrix spike solution.

MEMORANDUM

TO: Public Comment/Soil Matrix Rule Revisions
FROM: Al Kiphut, UST Cleanup Section *A.K.*
SUBJECT: Additional Comments from Kent Patton

Mr. Kent Patton contacted me by telephone on Thursday, 11/1/90 to convey additional comments on the soil matrix rules. He originally gave oral and written testimony at the Public Hearing in Portland on this subject on 10/23/90.

He discussed two areas which he felt needed additional clarification:

1. Section 340-122-350(5) (Required Analytical Methods) of the proposed revisions makes no clear indication of the appropriate method to be used for TPH analysis for waste oils. Assuming that waste oils fall into the "diesel" category allows for the use of either TPH-D or 418.1. He suggests that we pick one or the other, or put language in the waste oil section (5) which indicates that either method can be used [such as the language used in 340-122-350(2)].
2. Where we do mention 418.1 it is usually referred to as "EPA Method 418.1" but the description of the method in the Analytical Methods paper mentions taking the "methylene chloride to dryness ..." and the EPA Method 418.1 uses freon throughout the process. Mr. Patton reads this as two different 418.1 methods and, while he would prefer that both be acceptable to DEQ, suggests that this issue be clarified.

Chuck Haymond & Associates
3070 SW Royce Way
Lake Oswego, OR 97034
(503) 638-0734

11/2/90

UST Cleanup Section

RE. Proposed Changes to UST Cleanup Rates

The stated reason for changing analytical methods is to eliminate "background interference" in the current method. The existing TPH-418.1 has less problem with background interference than the proposed method if it is done on an FTIR. To determine total petroleum hydrocarbons by FTIR use clean freon-113 as a background. Expand the wavelength scale to display 3200 cm^{-1} to 2800 cm^{-1} . Collect enough scans so that the background noise is kept below 0.0005 AU. Read TPH by integrating the three peaks in this region against a manually set baseline. FTIR's (fourier transform infrared spectrometer) are more sensitive and more accurate than either dispersive or single wavelength instruments. Using a scanning instrument allows one to set a baseline (cancelling out errors from cell placement and background absorbance). Use of an FTIR makes it possible to expand both the wavelength and absorbance scales. FTIR's can display absorbance directly. Using freon-113 instead of methylene chloride will selectively remove the hydrocarbons and leave a lot of the interferences behind.

There are also good reasons not to adopt the proposed methods:

- (1) They don't provide better information.
- (2) They're complex, time consuming, expensive and less reliable.
- (3) Methylene chloride is more toxic than freon and more likely to get into the soil and water.

Department of Environmental Quality

E-15

Environmental Cleanup Division

Comments on the methods proposed - TPH-HCID, TPH-G, TPH-D and Oils

1. The TPH-HCID is superfluous if GC is required for the other methods.
2. The extraction/dilution/concentration procedure described in the proposed TPH-G is complex, expensive, error prone and generally not a good method. Methanol is not a suitable extractant for petroleum hydrocarbons because the partition coefficient between methanol and soil for petroleum products is too low. In addition methanol will extract the water soluble components too. The idea of diluting the extract in water and then reconcentrating with a purge and trap adds a time consuming procedure to the analysis without providing any advantage. In addition it will introduce errors in the quantitation of the non aromatic hydrocarbons. The idea of using random standards, i.e. "equal portions of three grades of gasoline from three different oil companies" will introduce additional errors. A much better plan is to select one reproducible standard and have everybody calibrate against that.
3. The TPH-D procedure has a lot of the disadvantages of the TPH-G method. Methylene chloride is a second best extractant. The extract, dilute, concentrate and analyze procedure has the same faults as the TPH-G method. The random standards problem is the same as with the TPH-G method. In addition, if this analysis were run with a PID detector too, it would be possible to discover aromatic compounds (from still bottoms and solvents)
4. In addition each of the GC procedures proposed will require either major instrument setup (changing columns and detectors) or a separate instrument for each analysis.


Chuck Raymond



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Post Office Box 307 • Manchester, Washington 98353-0307 • (206) 895-4740

October 22, 1990

State of Oregon
Department of Environmental Quality
RECEIVED

OCT 25 1990

Environmental Quality Laboratories

Mr. Richard Gates
Oregon Department of Environmental Quality
Laboratories and Applied Research;
Organics Section
1712 S.W. 11th
Portland, OR 97201

Dear Mr. Gates,

As you may be aware, the Department of Ecology in Washington State is considering including methods guidelines in our regulatory documents. Specifically, in this case, there is interest in using methods common to both Washington and Oregon for TPH and TPH-HCID and as such I have been requested by Jeanette Barreca to review the Oregon DEQ methods for these parameters. It is my understanding that at present these methods are open to peer review and to that end the following comments are submitted.

TPH-HCID Method

Extraction Procedure

1. I assume the use of the term sonicate indicates a sonic bath rather than the apparatus described in SW-846 method 3550.
2. Usually extracts are stored in a refrigerator and not a freezer.

Analysis Procedure

1. With respect to the type and diameter of capillary column, perhaps suggesting either DB-1 or DB-5 and 0.25 mm or 0.32 mm I.D. would be better since they are quite comparable and the resolution is sufficiently good on either to identify hydrocarbon mixtures. The film thickness should also be specified.
2. In the GC parameters, the isothermal initial time could well be reduced to two minutes without significant effect. The same can be said of the ramp rate of 8°C/min changed to 10 or even 15°C/min. The final temperature of 280°C when dealing with C₃₀ or greater components does not utilize the capabilities of the column, i.e., 325°C isothermal/350° on program. By modifying some of these parameters the sample run would not require 75 minutes (60 minutes is incorrectly shown as the total run time) and no

significant loss of ability to identify hydrocarbon classes (mixtures) is seen.

Standards

I believe that the retention time standards should include toluene, m, p and o-xylenes and ethylbenzene. It may also be advisable to add methylethylbenzene and one of the trimethylbenzene as well to allow the major aromatics found in gasoline to be tentatively identified.

Quality Assurance

It is indicated that the specific surrogate compound has not yet been selected. You may find 1-chlorooctane and 1-chlorooctadecane to be suitable surrogates for gasoline and diesel range components.

TPH-G Method

Equipment

Most people I talk to use DB-1, DB-5 or DB-624 columns for purge and trap work on volatiles. Rather than suggesting a DB-WAX column perhaps it would be better to stay with more frequently used columns. Also, the film thickness should be specified.

Sample Extraction

Assuming the purge vial (40 mL) is the standard VOA 40 mL sample bottle, it would appear that there would be considerable headspace (in some cases) when using 20 grams of sample and 10 mL of methanol. Sonication (I'm assuming sonic bath) for 15 minutes could possibly volatilize a considerable portion of target compounds. Further, transferring the methanol extract from the 40 mL vial to the 2 mL vial, depending on how it is done, could further increase losses of target material due to volatilization.

Analysis Results/Calculations

No guidance is shown with respect to frequency of standard analysis, percent relative standard deviations of response factors which are acceptable or what single point calibration-methods are acceptable.

TPH-D Method

Equipment

Again, a DB-5 should be allowed and the film thickness of the column should be specified.

Sample Extraction

1. Wet soils will cause the sodium sulfate to clump as stated in the method; however, this clump cannot be removed by just adding more sodium sulfate. A more mechanical approach needs to be performed or a loss of extraction efficiency will be seen. Using methylene chloride/acetone or methylene chloride/methanol as the extraction-solvents would eliminate the need for sodium sulfate at this step and a subsequent drying step could remove the water.
2. Method 3550 (SW-846) sonication of samples does not allow the use of ultra-sonic baths. The extraction efficiency of sonication by Method 3550 is also 14-21 percent less than Soxhlet Method 3540 for Appendix IX analytes and I would expect, because of the much lower power output, the ultra-sonic bath to be even worse. Soxhlet extraction should, because of its greater efficiency, be an allowed, if not the preferred, method.
3. The diameter of the drying column should be specified.
4. Again, why store the extract in a freezer rather than a refrigerator.

Analysis Procedure

One microliter injections are not allowed, to the best of my knowledge, for any EPA approved methods unless it is an internal standard method. The reproducibility of one microliter injections, unless performed by an autosampler, is not sufficiently good to be recommended. Further, an injection technique, e.g., hot needle or solvent flush, should be suggested.

GC Parameters

The hold time at the starting temperature can easily be shortened to two minutes and the final temperature should be raised to at least 320°C to facilitate the elimination of any fractions with boiling ranges above diesel.

Standards

It would seem desirable to increase the stock standard volume to be weighed from four drops to perhaps 40 drops and diluting that accordingly. This would reduce the error in weighing considerably.

Sample Calculations

Basically, my objections for this method are the same as for the TPH-G; there is no criteria for acceptance stated with respect to initial calibration, frequency of standard analysis, percent RSD of response factors or continuing calibration.

TPH-418.1

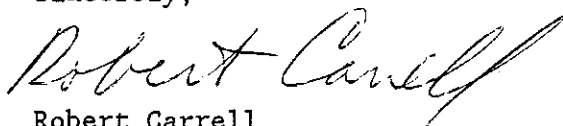
Summary

Perhaps it would be better to indicate that this method is a modification of 418.1 for soil since 418.1 is exclusively a water method. In addition, 418.1 does not allow any other solvent other than FREON 113 to be used.

The next revision of (additions to) SW-846 Methods will include Method 9073 which is an IR method for all matrixes and all hydrocarbon mixtures except gasoline. Since it uses a HC-ID first to establish what mixture is present and then calibrates the IR with that mixture, it would yield more accurate quantitation than the calibration mixture used in 418.1 method. Method 9073 will also require that a second silica gel treatment be performed rather than recommending it.

I hope these comments will be useful to you and should you have any questions or comments, please feel free to call me at any time.

Sincerely,



Robert Carrell
Chemist 4

BC:mb

cc: Bill Kammin
Dickey Huntamer
Jeanette Barreca

DEPARTMENT RESPONSE TO TESTIMONY

COMMENT - Concern about DEQ regulating waste oil tanks

Response:

Mr. Mike Hawkins felt that DEQ should not be regulating waste oil tanks. DEQ is required by statute (ORS 465.200 to 465.420) to regulate any release of a hazardous substance. The portion of the Soil Matrix Rules which addresses waste oil tanks [340-122-340(6)] simply states which substances must be sampled for should a leak from a waste oil tank be identified.

COMMENT - Proposed methods will cost more and may not be accurate

Response:

Mr. Hawkins and Mr. Armstrong expressed concern that the proposed analytical methods would cost more than the existing approach and that the methods might not be accurate. The proposed methods will, in fact, cost more than the existing method (approximately \$200-\$400), but they will provide greater accuracy and the Department feels the additional costs are warranted given the limited Department oversight on this type of release. The proposed methods were not "suspect" during the initial discussions on the matrix approach. It was actually EPA Method 418.1, the existing method, which raised some concerns.

COMMENT - Need a reference in the rules to discharge permits

Response:

Byron Peterson, DEQ SW Region, recommended that language be inserted in the rules to warn people that they may need to obtain a discharge permit for allowing water from a tank pit to be discharged into a public drain. Language to this effect has been included in section 340-122-340(4)(a) of the rules.

COMMENT - Procedures in Analytical Methods need clarification

Response:

Several people had very detailed comments related to the specific procedures in the Analytical Methods description prepared by DEQ's lab. Those comments were generally incorporated into the Analytical Methods description unless there was a conflict with a

related DEQ or EPA methodology. Without going into details, most of the comments from John W.T. Neilson, Colin Elliott, Kent Patton and Robert Carrell have been incorporated into the Analytical Methods description. Comments from Douglas Hunt and Chuck Haymond were not, due to inappropriateness of the suggestion or confusion about the 418.1 methodology.

Colin Elliott and Kent Patton both identified an area which needs clarification. They pointed out that the 418.1 methodology described in the Analytical Methods is a modified version of EPA's Method 418.1. Their question was whether both methods were acceptable, since the previous version of the rules referred to "EPA Method 418.1". The text of the rules and the Analytical Methods have been revised to make it clear that 418.1 refers to DEQ's modified approach. The primary difference is the use of methylene chloride instead of freon. While freon is currently used in EPA Method 418.1, as well as other analytical procedures, it will soon be phased out as a recommended practice. The Department is simply phasing it out at this time.

Another important area which warrants some comment is whether or not the HCID can be skipped if it is certain that only gasoline is present. The HCID must always be run first to determine which path is to be followed in analyzing the samples. Unlike the previous methodology where the gasoline standard could be used as a cleanup standard regardless of the fuel type, the proposed methodology for gasoline or diesel is fuel specific and a determination of the contaminant must be made up front. Section 340-122-335(3) has been modified to clarify this point.

Proposed

TOTAL PETROLEUM HYDROCARBONS Analytical Methods

Soil Matrix Rules for Underground Tank Cleanup
OAR 340-122-350
13 Nov 90

**TOTAL PETROLEUM HYDROCARBONS
ANALYTICAL METHODS**

The following compilation of analytical methods is to be used in satisfying Oregon's Soil Matrix Rules for Underground Storage Tank Cleanups (OAR 340-122-350). Each of these Total Petroleum Hydrocarbon (TPH) Methods has its own niche in the overall analytical scheme. The methods are:

TPH-HCID ---- Hydrocarbon Identification
TPH-G ----- Gasoline
TPH-D ----- Diesel
TPH-418.1 Modified --- IR Method for Heavier Oils

TPH-HCID is a qualitative screen to determine what petroleum products, if any, exist at the excavation site. It is intended to be a screen to be performed on a highly contaminated soil sample that is representative of the contamination at the site. The results of this method will determine what quantitative method/methods are to be used in determining compliance with the matrix criteria.

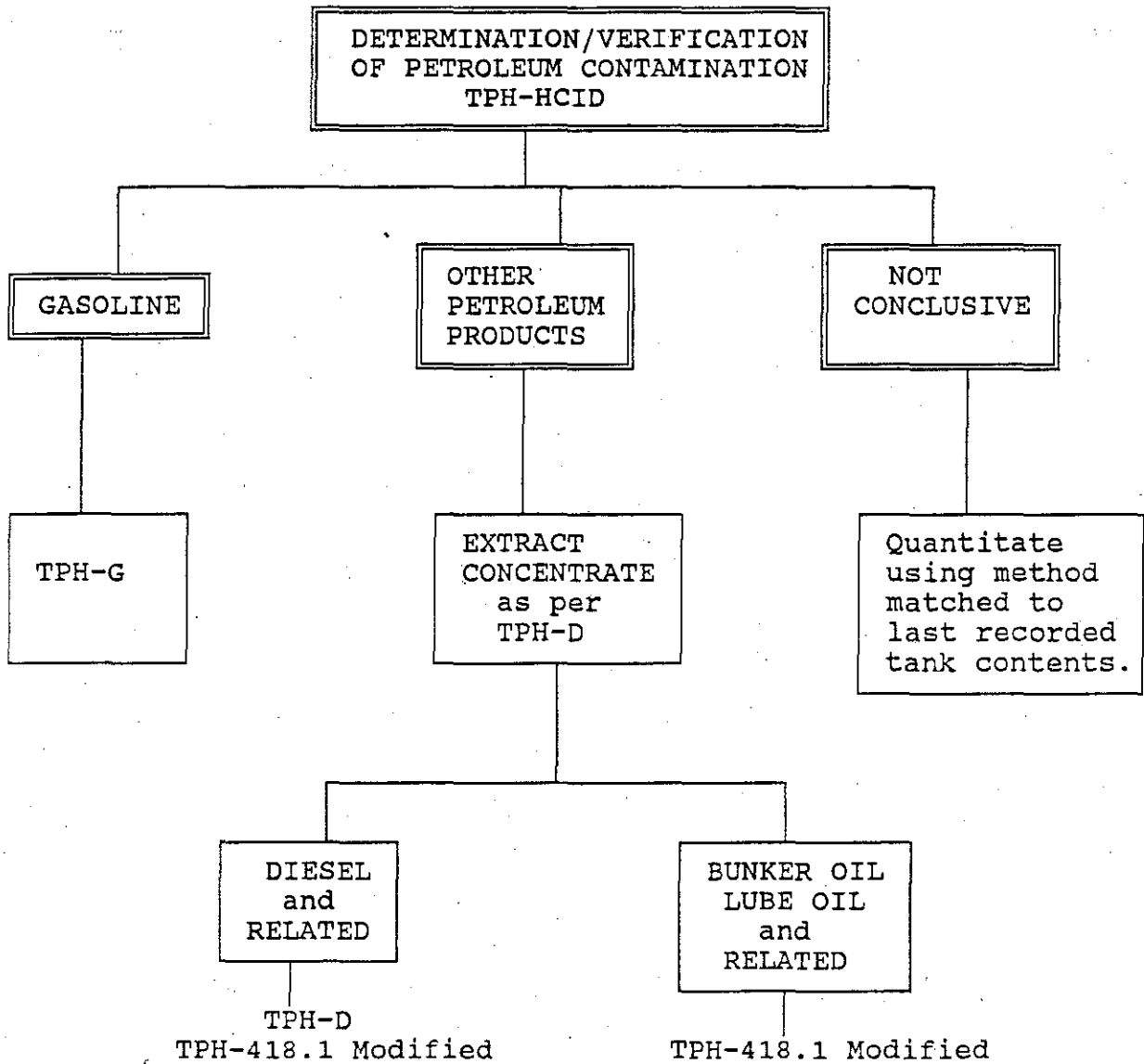
TPH-G is the quantitative method for soils containing gasoline.

TPH-D is the quantitative method for soils containing petroleum products ranging from kerosene through fuel oil #4. This method calculates all these products as diesel equivalents for use in the soil matrix.

TPH-418.1 Modified is the quantitative method for soils containing bunker C, lube oils or combinations of TPH-D products and lube oils/Bunker C.

LUST ANALYTICAL DECISION TREE

The following flow chart depicts the laboratory analytical scheme to be used in analyzing LUST samples. The first step is the qualitative determination of the existence and nature of petroleum contamination. The results of this step will determine the appropriate quantitative procedure to be used for compliance with LUST closure samples. It is expected that this first step will be performed on a representative sample from the most contaminated area at the site.



Revision Date 13 Nov 90

Approval _____

State of Oregon
Department of Environmental Quality
Laboratories and Applied Research
Organic Section

TPH-HCID
HYDROCARBON IDENTIFICATION IN SOILS
LIST MATRIX

Summary:

This method is only a qualitative procedure which identifies petroleum products containing components in the C₅-C₄₀ range by Gas Chromatography using a capillary column and a Flame Ionization Detector (FID).

Equipment:

Gas Chromatograph
Chromatography Data System
Capillary Split/Splitless Injector
Flame Ionization Detector (FID)
Suggested Column
 J&W Bonded phase, fused silica capillary column, DB-1, 30M X 0.25mm
 Other columns may be used if equivalent separations are demonstrated.
Gastight syringe, 10 ul
Glass Vial with Teflon Coated Septum
Pyrex Glass Wool (Methylene Chloride washed)

Extraction Procedure:

Soil Samples:

Place approximately 10 grams of the soil sample and 10 ml of methylene chloride into a 40 ml glass vial and seal with teflon lined cap. Sonicate for 10 minutes. Elute 5 ml of the solvent phase through an Anhydrous Sodium Sulfate micro-column. Collect the extract in a glass vial, seal with a teflon lined cap and store in the freezer until analyzed.

NOTE: Micro-column of Anhydrous Sodium Sulfate is prepared by plugging a one ml disposable Pasteur pipette with Pyrex glass wool and adding

approximately 3 cm of Anhydrous Sodium Sulfate.

Analysis Procedure:

Inject the extract onto the DB-1 capillary column utilizing a split/splitless or direct injector. Plot the chromatogram from Pentane (C₅) to Tetracontane (C₄₀).

Suggested GC parameters:

Starting Column Temperature = 40 °C Isothermal for 5 min.
Ramp Rate = 8 °C/min. for 37.5 min.
Final Temperature = 280 °C Isothermal for 32.5 min
Injector Temperature = 300 °C
Detector Temperature = 320 °C
Total Run Time = 60 min.
Injected Sample Volume = 1-2 ul
Make-up Flow for FID = 30 ml/min
Hydrogen Flow = 25 ml/min
Air Flow = 300 ml/min

Standards:

Retention Time Standard:

Prepare a composite standard composite of n-alkane hydrocarbons from Pentane (C₅) through Triacontane (C₃₀) plus Tetracontane (C₄₀) at 25 ug/ml per component.

Comparison Reference Standards:

Individual petroleum products (ie. gasoline, kerosene, fuel #1, fuel #2, etc.) at approximately 250 ug/ml.

Sample Calculations:

This method is strictly qualitative. Petroleum products are to be identified as follows:

If the petroleum product can be matched to reference chromatograms, by pattern recognition, then the sample can be identified as such.

Otherwise, identify as follows:

Gasoline is indicated if compounds are detected between Hexane (C₆)

and Decane (C₁₀).

Diesel and related products are indicated if compounds are detected between Decane (C₁₀) and Octacosane (C₂₈).

Bunker C and related products are indicated by the presence of a chromatographic envelope extending beyond Octacosane (C₂₈).

Quality Assurance:

Appropriate surrogate extraction spike will be required. (The specific surrogate compound has not yet been selected.)

Bibliography

Current method developed by researchers at this facility.

Approval _____

State of Oregon
Department of Environmental Quality
Laboratories and Applied Research
Organic Section

**TPH-G
GASOLINE IN SOILS
LUST MATRIX**

Summary:

The TPH-G Method adapts EPA SW-846 Methods 5030 and 8020 to perform the analysis for Gasoline in soils as required by Oregon's "CLEANUP RULES FOR LEAKING PETROLEUM UST SYSTEMS". The method involves extracting the soil samples with methanol, combining a portion of the extract with reagent water, purging the aqueous mixture on a purge & trap instrument and performing the analysis on the gas chromatograph using a Photo Ionization Detector (PID). The reporting limit is 10 mg/Kg.

Equipment:

Gas Chromatograph
Integrating Data System
Photo Ionization Detector (PID)

Suggested Columns:

Supelco 5% SP-1200, 1.75% Bentone on 100/200 Supelcoport; 6' X 1/8" SS
J&W DB-Wax Megabore 0.53 X 30 M capillary

Other columns may be used if equivalent separations are demonstrated.

Liquid Sample Concentrator, Tenax/Silica Gel/Charcoal Trap

Flowmeter

Adjustable Plunger Syringe, 5 ml

Gastight Syringe, 10 ul and 100 ul

Glass 40 ml Purge Vial with a Teflon-lined Screw cap

Sonic Bath

Sample Extraction:

Soil Samples:

Weigh 20 grams into a 40 ml purge vial and add 10 ml of Methanol and _____ml of the surrogate solution. Quickly cap the vial and shake for 2 minute or sonicate for 2 minutes and allow the Methanol to separate. Centrifuge, if

necessary, to clarify Methanol extract. For storage transfer a portion of the extract to a 2 ml glass vial with a teflon-lined cap and store in freezer/refrigerator until analyzed.

Analysis Procedure:

A 100 ul aliquot of the Methanol extract is transferred to 5 ml of reagent water in the adjustable 5 ml syringe. The sample is injected into the purging chamber of the purge & trap device. If samples have elevated concentrations of volatiles, a smaller aliquot of the Methanol extract maybe selected. The volatile hydrocarbons (gasoline) in the sample are concentrated by the Purge & Trap unit onto the Tenax/Silica gel/Charcoal trap. At completion of the purge cycle the Purge & Trap unit is cycled to the desorb mode and the volatile hydrocarbons are swept onto the GC column. At the end of the desorb mode the GC run is started and the analysis completed. The chromatography time is 25 minutes but the entire purge & trap/GC cycle time is approximately 45 minutes per sample.

Suggested Purge & Trap Operating Parameters:

Purge Ready Temperature = 30 °C
Purge Temperature = 30 °C for 11 minutes
Desorb Preheat Temperature = 125 °C
Desorb Temperature = 200 °C for 4 minutes
Bake Temperature = 225 °C for 12 minutes
Purge Gas Pressure = 20 psi
Purge Gas Flow = 40 ml/minute
Desorb Gas Flow = 20 ml/minute

Suggested GC parameters:

J&W DB-Wax Megabore 0.53 mm ID X 30 M Capillary column.

Starting Column Temperature = 35 °C Isothermal for 5 min.
Ramp Rate = 8 °C/min. for 2.5 min.
Final Temperature = 140 °C Isothermal for 6.88 min
Injector Temperature = 240 °C
Detector Temperature = 245 °C
Total Run Time = 25 min.
Injected Sample Volume = Direct from P & T
Carrier Flow = 20 ml/min

Standards:

Gasoline Stock Standard:

Equal portions of three grades of gasoline (regular, unleaded regular and unleaded supreme) from three different oil companies are mixed together to form a composite gasoline. From this composite gasoline a stock standard is prepared accordingly. Place approximately 9 ml of methanol in a 10 ml ground-glass stoppered volumetric flask. Allow the flask to stand, unstoppered, until all alcohol wetted surfaces have dried (about 10 minutes). Tare flask and contents unstoppered.

Add about 10 drops of the composite gasoline standard to the flask. The liquid must fall directly into the alcohol without contacting the neck of the flask. Reweigh, dilute to volume with methanol, stopper, and mix by inverting the flask several times.

Calculate the concentration as follows:

$$C = \frac{A - B}{10 \text{ ml}} \frac{(1000 \text{ ug})}{\text{mg}}$$

A = Final Weight (mg)

B = Tared Weight (mg)

C = Stock Concentration (ug/ml)

Secondary Dilution Standard:

Prepare a 10 ml, 2500 ug/ml gasoline standard as follows:

$$V = \frac{2500 \text{ ug/ml} \times 10 \text{ ml}}{C}$$

V = ul to be brought to 10 ml

C = Stock Standard Concentration (ug/ml)

Calibration Standard:

The aqueous, purge gasoline standards are each prepared by adding 1 ul, 2 ul, 5 ul, 10 ul of 2500 ug/ml of the dilution standard to 5 ml of organic free water by injecting each aliquot into the end of the 5 ml syringe containing 5 ml of organic free water. The calibration standard concentrations in the purged water are calculated:

Calibration Standard = (ul of stock) (0.001 ml/ul) (2500 ug/ml) / 5 ml
(ug/ml)

Analysis Results/Calculations:

The area of the components from Benzene to Naphthalene is integrated as a group (valley to valley) and compared to concentrations of the gasoline standards which are also integrated as a group. Sample concentrations are to be reported on an as received basis with no correction for moisture content.

$$\text{Sample Concentration} = \frac{(A \times R) (5 \text{ ml}) (D)}{(\text{ug/g or mg/Kg}) (E) (F)}$$

- A = Group Area of Sample
- R = Response Factor from std curve
(ug/ml)/area count
- D = 10 ml of methanol
- E = Volume methanol used (0.1 ml)
- F = Weight of Sample (g)

If a single point calibration method is being used, linearity must be demonstrated in the working range.

Quality Assurance:

Sample duplicate must be performed with each analytical batch or 15% (1 in 7).

Appropriate surrogate extraction spike will be required and must be reported with the results. (The specific surrogate compound has not yet been selected.)

Revision Date 13 Nov 90

Bibliography:

EPA Method 602 NPDES

EPA RCRA SW 846 8020.

Current method was developed by researchers at this facility

State of Oregon
Department of Environmental Quality
Laboratories and Applied Research
Organic Section

**TPH-D
DIESEL IN SOILS
LUST MATRIX**

Summary:

The TPH-D Method covers the analysis for Diesel in soils as required by Oregon's "CLEANUP RULES FOR LEAKING PETROLEUM UST SYSTEMS". The method involves extracting/sonicating the soil samples with methylene chloride, filtering through sodium sulfate and injecting on a gas chromatograph equipped with a flame ionization detector. The lower reporting limit is 20 mg/Kg.

Equipment:

Gas Chromatograph
Chromatography Data System
Flame Ionization Detector (FID)
Columns

J&W DB-1, fused silica capillary column, 30M X 0.25mm

Other columns may be used if equivalent separations are demonstrated.

Gastight Syringe, 10 ul

Sample Extraction:

Soil Samples:

Weigh 20 grams of soil and 20 grams of anhydrous sodium sulfate into a 125 ml erlenmeyer flask and mix completely with a spatula. The mixture should have a grainy texture. If it forms a large clump, add more anhydrous sodium sulfate, grind to grainy texture and note in the extraction log. Add 40 ml of Methylene Chloride and sonicate for 10 minutes if using an ultra-sonic bath or for 3 minutes if using a horn sonicator. Allow mixture to stand and decant the Methylene Chloride extract through a drying column containing about 10 cm of anhydrous sodium sulfate. Collect the dried extract in a 500 ml Kuderna-Danish concentrator. Repeat the extraction twice more using

40 ml of methylene chloride each time and combine the extracts. Attach Snyder columns and concentrate to 10.0 ml final volume. If the extract is highly colored or forms a precipitate, a dilution may be necessary. Transfer the extract to a glass vial with a teflon lined cap and store extract in the freezer until analyzed.

Analysis Procedure:

The soil (methylene chloride) extract is analyzed on the gas chromatograph directly. One micro-liter of the extract (1 ul) is injected onto the DB-1 capillary column. The chromatography time is approximately 35 minutes per sample.

GC parameters:

Column is a J&W DB-1, 30 M x 0.25 um fused silica capillary column.

Starting Column Temperature = 50 °C Isothermal for 5 min

Ramp Rate = 10 °C/min. for 25 min

Final Temperature = 300 °C Hold for 5 min

Injector Temperature = 300 °C

Detector Temperature = 320 °C

Total Run Time = 35 min

Injected Sample Volume = 1 ul

Carrier Linear Velocity @ 50 °C = 20 cm/sec

Air Flow = 300 ml/min

Hydrogen Flow = 25 ml/min

Standards:

Equal portions of diesel fuel from three different oil companies are mixed together to form a composite diesel fuel. From this composite fuel a stock standard of approximately 5000 ug/ml is prepared by adding 4 drops of the diesel stock to an empty, tared 10 ml vol flask. The flask is reweighed and then brought to volume with methylene chloride.

$$C = \frac{A - B}{10 \text{ ml}} \frac{(1000 \text{ ug})}{\text{mg}}$$

A = Final Weight (mg)

B = Tared Weight (mg)

C = Stock Concentration (ug/ml)

Calibration Standard:

Prepare calibration standards from the stock at concentrations of 100

ug/ml, 200 ug/ml, 500 ug/ml and 1000 ug/ml.

Sample Calculations

The area of the components from Decane (C₁₀) through Octacosane (C₂₈) is integrated to the baseline as a group. The response factor is developed from the calibration standards. Results are reported on an as received basis with no correction for moisture.

$$\text{Sample Concentration} = \frac{(A \times R) V D}{W}$$

(mg/Kg or ug/g)

- A = Area Count from Sample
- R = Response factor (ug/ml)/area count
- V = Extract Volume (ml)
- D = Dilution Factor
- W = Weight of Sample (g)

If a single point calibration method is being used, linearity in the working range must be demonstrated.

Quality Assurance:

Sample duplicates must be performed with each analytical batch or 15% (1 in 7).

Appropriate surrogate extraction spike will be required and must be reported with the results. (The specific surrogate compound has not yet been selected.)

Bibliography:

EPA SW 846, Methods 3550, 8000

American Petroleum Institute, "Method for Determination of Diesel Range Organics" (Draft, 9 Sep 90)

Current method developed by researchers at this facility

State of Oregon
Department of Environmental Quality
Laboratories and Applied Research
Organic Section

TPH-418.1 Modified
LUBE OILS AND BUNKER C IN SOILS
LUST MATRIX

Summary:

The TPH-418.1 Modified method covers the analysis of soil samples containing lubricating oils and Bunker C as required by Oregon's "CLEANUP RULES FOR LEAKING PETROLEUM UST SYSTEMS". The method utilizes the TPH-D soil extraction but takes the methylene chloride to "dryness" and redissolves with Freon to facilitate Infra-red Analysis. The Freon extract is combined with a silica gel adsorbent to remove non-petroleum interferences and subjected to infrared analysis at 2930 cm^{-1} . TPH is determined by the direct comparison with standards defined in this method.

Apparatus and Materials:

Infrared spectrophotometer, scanning or fixed wavelength, for measurement around 2930 cm^{-1} .

IR cells, 10mm, 50mm and 100mm, infrared grade glass.

Magnetic stirrer with teflon coated stir bars.

Silica gel, 60-200 mesh, Davidson Grade 950 or equivalent containing 1-2% water.

Freon 113 (1,1,2-Trichloro-1,2,2-trifluoroethane)

Sample Extraction:

Soil Samples:

Weigh 20 grams of soil and 20 grams of anhydrous sodium sulfate into a 125 ml erlenmeyer flask and stir well with a spatula. The mixture should have a grainy texture. If it forms a large clump, add more anhydrous sodium sulfate and note in the extractions log. Add 40 ml of methylene chloride and sonicate for 10 minutes if using an ultra-sonic bath or for 3 minutes if using a horn sonicator. Allow the mixture to stand and decant the methylene chloride extract through a drying column containing 10 cm of anhydrous sodium sulfate. Collect the dried extract in a 500 ml Kuderna-Danish

concentrator. Repeat the extraction twice more using 40 ml of methylene chloride each time and combined the extracts. Concentrate to 5 ml. Using an N-evap apparatus remove all the methylene chloride. Redissolve the residue with freon 113 to 25 ml in a volumetric flask.

Calibration Mixture

Reference oil: Pipet 15.0 ml n-hexadecane, 15.0 ml isooctane, and 10.0 ml chlorobenzene into a 50 ml teflon sealed bottle. Keep container sealed except when withdrawing aliquots.

Stock Standard: Pipet 1.0 ml reference oil into a tared volumetric flask (100 or 200 ml), stopper and reweigh to obtain mass per volume concentration. Dilute to volume with freon 113.

Working Standard: Pipet appropriate volumes of stock standard into 25 ml volumetric flasks according to the cell path length being used and dilute to volume with freon 113.

Analysis Procedure:

Discard approximately 4 ml of the sample (just below the base of the neck of the flask) and add 3 gm silica gel and a stirring bar; stopper the flask and stir the solution for a minimum of 5 minutes on the magnetic stirrer.

Select appropriate working standards and cell pathlengths accordingly:

<u>Pathlength</u>	<u>Range</u>
10 mm	2 - 40 mg
50 mm	0.5 - 8 mg
100 mm	0.1 - 4 mg

Calibrate the IR using the appropriate working standards for the cells. It is not necessary to add silica gel to the standards. Determine absorbance directly for each solution at the absorbance maximum at about 2930 cm^{-1} , and prepare a calibration plot of absorbance vs. mg TPH per 25 ml standard extract solution.

After the silica gel has settled in the sample extract, fill the cleaned sample cell with solution and determine the absorbance of the solution. If the absorbance exceeds 0.8 prepare an appropriate dilution. (The possibility that the absorptive capacity of the silica gel has been exceeded can be tested at this point by adding another 3.0 g silica gel to the extract and repeating the determination.

Determine the concentration of TPH in the extract by comparing the response against the calibration plot.

Calculation

Calculate TPH in the sample as follows:

$$\text{Mg/KG TPH} = \frac{R \times D}{W}$$

where:

- R = mg of TPH as determined from the calibration plot.
- D = extract dilution factor, if used.
- W = weight of sample, in KG.

Bibliography:

EPA Method 418.1

TPH-D Method

Meeting Date: December 14, 1990
Agenda Item: G
Page 5

INTENDED FOLLOWUP ACTIONS:

If the Commission approves the Department's recommendation, the Department will:

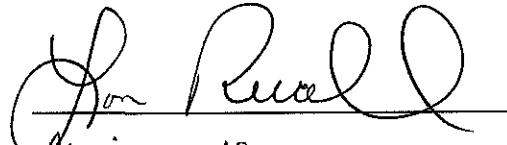
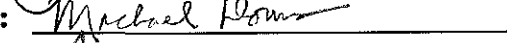

1. Continue to work with EPA on the national development and testing of uniform procedures for the analysis of petroleum hydrocarbon contamination;
2. If necessary, request additional amendments at such time as uniform procedures are developed.

Approved:

Section:

Division:

Director:

Report Prepared By: Alan D. Kiphut

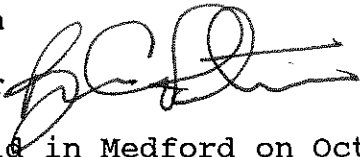
Phone: 229-6834

Date Prepared: November 21, 1990

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11/21/90

MEMORANDUM

TO: Environmental Quality Commission

FROM: Byron Peterson, Hearings Officer 

SUBJECT: Report on the Public Hearing held in Medford on October 30, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-122-360).

List of Witnesses

5 people attended the hearing.
2 people gave oral testimony.
no written testimony was submitted.

The people testifying were:

Mike Hawkins, Hawk Oil Company
John W.T. Neilson, Neilson Research Corporation

Summary of Comments

1. **Mike Hawkins.** Mr. Hawkins expressed concern that DEQ was regulating waste oil tanks. He stated that EPA was not regulating waste oil tanks because more than half of the American public changes their own oil and it just goes down the drain. He felt DEQ should be encouraging people to take their waste oil to gas stations rather than regulating waste oil tanks at the station. His understanding is that the new regulations will add about \$700 in soil testing costs when the tank is replaced. He stated that these methods were suspect when the matrix program was first being looked at last year and expressed concern about their accuracy.
2. **John W.T. Neilson.** Mr. Neilson had specific comments on portions of the rule revisions and the analytical methods description. He quoted the section on page A10 [rule revisions: 340-122-350(2)] which talked about using 418.1 or TPH-D for analyzing diesel contamination, and stated that this was confusing because the new analytical methods appear to be replacing 418.1 with TPH-D, but this section indicates you could use either method. He also commented on the description of the methodology for TPH-G on page 4 (analytical methods) and pointed out that the methodology makes no reference to preparation of benzene/naphthalene standards. He felt this needed to be addressed. Mr. Neilson also pointed out that in the analysis procedure for lube oils and Bunker C, it requires putting 3 grams of silica gel and a stir bar into a 20 ml volumetric flask. He stated that this much material would not fit in that size container and the wording needed to be changed.

Environmental Quality
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E-2
Environmental Cleanup Division

MEMORANDUM

TO: Environmental Quality Commission

FROM: Mary McGowan, Hearings Officer *MM.*

SUBJECT: Report on the Public Hearing held in Pendleton on October 24, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-340-122-360).

List of Witnesses

2 people attended the hearing.
Neither of them gave oral testimony.
No written testimony was submitted.

Summary of Comments

No testimony was presented.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Alan Kiphut, Hearings Officer *A.K.*

SUBJECT: Report on the Public Hearing held in Bend on October 25, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-122-360).

List of Witnesses

No one attended the hearing.
There was no oral testimony.
No written testimony was submitted.

Summary of Comments

No testimony was presented.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Rick Silverman, Hearings Officer *R.S.*

SUBJECT: Report on the Public Hearing held in Eugene on October 30, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-122-360).

List of Witnesses

8 people attended the hearing.
1 person gave oral testimony.
no written testimony was submitted.

The person testifying was:

Michael L. Armstrong, Pacific Petroleum Corporation

Summary of Comments

Michael L. Armstrong. Mr. Armstrong commented that it is important to keep the matrix approach as simple as possible and be able to use it as a fast-track approach. He stated that station owners are concerned about the cost/benefit ratio of any changes to the rules, as well as how the time frame for cleaning up a site through the matrix rules is affected. He stated that owners don't want these factors negatively impacted.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Andree Pollock, Hearings Officer *AP*

SUBJECT: Report on the Public Hearing held in Portland on October 23, 1990 concerning the proposed revisions to the Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-205 to 340-122-360).

List of Witnesses

- 13 people attended the hearing.
- 4 people gave oral testimony.
- 1 person submitted written testimony.

The people testifying were:

G.C. Alexander, Newberg, Oregon
Colin Elliott, Columbia Analytical Services
Douglas Hunt, Carson Oil Company
Kent Patton, NET Pacific, Inc.

Written testimony was submitted by Kent Patton.

Summary of Comments

1. **G.C. Alexander.** Mr. Alexander had not seen the proposed revisions and mistakenly thought that a private contractor had prepared the analytical methods description and would have an unfair advantage over other contractors. He also had a question on the TPH analysis which indicated that he was not familiar with the rules. I suggested that his questions would be answered by reading the proposed rules and listening to the other testimony.
2. **Colin Elliott.** Mr. Elliott stated that he felt the revisions needed additional clarification before final adoption. Specifically, he asked if the HCID tests have to be performed if the client is certain that only gasoline is present. He also thought the section on using 418.1 for diesel analysis needed additional clarification, as did the situation where you have samples with a mixture of gas/diesel. He also pointed out the identification analysis for gasoline appears to be different from the actual gas analysis.

MEMORANDUM

TO: Public Comment/Soil Matrix Rule Revisions
FROM: Al Kiphut, UST Cleanup Section *A.K.*
SUBJECT: Additional Comments from Kent Patton

Mr. Kent Patton contacted me by telephone on Thursday, 11/1/90 to convey additional comments on the soil matrix rules. He originally gave oral and written testimony at the Public Hearing in Portland on this subject on 10/23/90.

He discussed two areas which he felt needed additional clarification:

1. Section 340-122-350(5) (Required Analytical Methods) of the proposed revisions makes no clear indication of the appropriate method to be used for TPH analysis for waste oils. Assuming that waste oils fall into the "diesel" category allows for the use of either TPH-D or 418.1. He suggests that we pick one or the other, or put language in the waste oil section (5) which indicates that either method can be used [such as the language used in 340-122-350(2)].
2. Where we do mention 418.1 it is usually referred to as "EPA Method 418.1" but the description of the method in the Analytical Methods paper mentions taking the "methylene chloride to dryness ..." and the EPA Method 418.1 uses freon throughout the process. Mr. Patton reads this as two different 418.1 methods and, while he would prefer that both be acceptable to DEQ, suggests that this issue be clarified.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: 12/14/90
Agenda Item: H
Division: ECD
Section: drug lab program

SUBJECT:

Proposed adoption of Drug Lab Cleanup Rules.

PURPOSE:

Permanent rules are being requested so that the Department of Environmental Quality (Department) may continue to provide services to law enforcement agencies cleaning up illegal drug labs, and comply with the directive of the Emergency Board on May 18, 1990, and November 16, 1990.

The Emergency Board made funding for the program contingent on rules that require repayment by law enforcement agencies of a share of the Department's costs. Temporary rules were adopted by the Commission on June 29, 1990. At that time the Environmental Quality Commission (Commission) also granted approval for public notice and hearings prior to the proposed adoption of permanent rules.

Adoption of Permanent rules is necessary to replace the temporary rules which expire on December 31, 1990.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Potential Strategy, Policy, or Rules
 - Agenda Item for Current Meeting
 - Other: (specify)
- Authorize Rulemaking Hearing (for Permanent Rules)
- Adopt Rules

Meeting Date: 12/14/90
Agenda Item: H

Proposed Permanent Rules	Attachment <u>A</u>
Rulemaking Statements for Permanent Rules	Attachment <u>B</u>
Fiscal and Economic Impact Statement	Attachment <u>B</u>
Public Notice	Attachment <u> </u>
<u> </u> Issue a Contested Case Order	
<u> </u> Approve a Stipulated Order	
<u> </u> Enter an Order	
Proposed Order	Attachment <u> </u>
<u> </u> Approve Department Recommendation	
<u> </u> Variance Request	Attachment <u> </u>
<u> </u> Exception to Rule	Attachment <u> </u>
<u> </u> Informational Report	Attachment <u> </u>
<u> </u> Other: (specify)	Attachment <u> </u>

DESCRIPTION OF REQUESTED ACTION:

The Department is requesting adoption of Permanent Rules that contain the basic operating procedures of the Drug Lab Program. These procedures include the activities of the program authorized by the 1987 statute that created the program and those necessary to comply with other relevant waste management statutes. Additionally, the proposed rules include requirements for a 50% cost share from law enforcement agencies, and provisions for exemption from cost share, as directed by the Emergency Board on May 18, 1990 and November 16, 1990.

The proposed permanent rules are substantially similar to the temporary rules adopted in June, but with amendments based on the testimony offered during the public review period.

AUTHORITY/NEED FOR ACTION:

<u> </u> Required by Statute: _____	Attachment <u> </u>
Enactment Date: _____	
<u> X</u> Statutory Authority: <u>ORS475.405 - 475.495</u>	Attachment <u>C</u>
<u> </u> Pursuant to Rule: _____	Attachment <u> </u>
<u> </u> Pursuant to Federal Law/Rule: _____	Attachment <u> </u>
<u> </u> Other: _____	Attachment <u> </u>
<u> </u> Time Constraints: _____	

The temporary rules that the Department was directed to put in place by the Legislative Emergency Board in May 1990 will

Meeting Date: 12/14/90
Agenda Item: H

expire on December 31, 1990. There has been no change in the requirement of the Emergency Board that these rules should be in place.

DEVELOPMENTAL BACKGROUND:

___ Work Group Report/Recommendation	Attachment	<u>D</u>
___ Hearing Officer's Report/Recommendations	Attachment	<u>E</u>
___ Response to Testimony/Comments	Attachment	<u>F</u>
___ Prior EQC Agenda Items: (list)	Attachment	___
___ Other Related Reports/Rules/Statutes:	Attachment	___
___ Supplemental Background Information	Attachment	<u>G</u>

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The effect of these rules is anticipated to be limited to the law enforcement agencies assisted by the program, especially those required to pay cost share. The cost share provision of the proposed rule requires that half of the cost of the cleanup be repaid to the DEQ. Partner agencies that are not exempted from this provision by other parts of the rule and do not repay the DEQ will not be assisted in the future.

PROGRAM CONSIDERATIONS:

These proposed permanent rules are not expected to change the existing program objectives of responsible waste management, and public health and safety where hazardous materials are discovered at an illegal drug lab.

There are modifications to the Department's previous practice of transporting and temporarily storing waste at local facilities not designed or licensed to accommodate this material. The proposed rule emphasizes the immediate disposal of hazardous waste with retention of only representative samples by the partner agency for evidence. This modification will reduce the potential for procedural violations of hazardous waste laws by the Department. In addition, immediate disposal has proven to be a more cost effective method of operation than temporary storage and consolidation prior to disposal.

Meeting Date: 12/14/90
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These rules encourage the Department to pursue responsible party cost recovery as an additional source of funding with the cooperation of the local law enforcement agencies. This activity may require shifting of some current duties to create the needed time.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adoption of permanent rules to clearly establish roles and responsibilities, and to require sharing of program costs between the Department and law enforcement agencies.
2. Shifting the full cost of operation of the program onto the responsible party or the land owner. This alternative by all responsible indications would not produce adequate funding for operation.
3. A legislative funding solution other than 50% cost share, if such a bill is sponsored, may be considered and supported by the Department during the 1991 session. Possibly a stable and reliable funding source can be determined. The agencies affected by these rules and not satisfied with other options favor this approach.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission adopt the permanent rule (attachment A) proposed as Alternative 1.

Alternative 1 provides for operation of the program in a manner consistent with the directive of the Emergency Board and meets the expectations of the law enforcement community (with the exception of cost share). No other option examined has the potential for providing the funds necessary to support the cleanup program. No other option would allow for the continued operation of the program while funding problems are resolved.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Meeting Date: 12/14/90
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These rules are consistent with other policies and rules.

ISSUES FOR COMMISSION TO RESOLVE:

1. Whether the proposed rules adequately address the directive of the legislature and the affected community's needs.
2. Whether to support legislation, if introduced, or other action to address the issue.

INTENDED FOLLOWUP ACTIONS:

Upon EQC adoption, file the Permanent Rule with the Secretary of State and Legislative Counsel, and provide post-adoption notice of the Permanent rule to the affected persons.

Approved:

Section: *Ed Wilson*

Division: *Michael How*

Director: *Ed Wilson*

Report Prepared By: Ed Wilson

Phone: 229-5373

Date Prepared: November 21, 1990

(Ed Wilson)
(druglab)
(November 21, 1990)

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 140 - DEPARTMENT OF ENVIRONMENTAL QUALITY

ILLEGAL DRUG LAB CLEANUP ASSISTANCE

AUTHORITY, PURPOSE, AND SCOPE

340-140-010 (1) These rules are promulgated in accordance with and under the authority of ORS 475.405 through ORS 475.495.

(2) The purpose of these rules is to establish the policies of the Department of Environmental Quality when responding to a request made by a law enforcement agency for assistance with the cleanup of hazardous materials and chemicals related to the production of illegal drugs.

(3) These rules establish relationships and responsibilities relative to:

(a) The Department's role in drug lab waste management.

(b) The assisted law enforcement agency's role in drug lab waste management.

(c) [The temporary storage of materials not sent directly to disposal] The taking of representative samples, and/or packaging, of materials needed for evidence.

(d) The sharing of costs of drug lab cleanup activity undertaken by the Department.

(e) The documentation of waste management and site contamination.

(f) The role of the Department in the recovery of funds from responsible parties.

(g) The disposition of those materials managed by the Department as a result of the assistance provided that are not disposed as waste.

DEFINITIONS:

340-140-020 As used in these rules,

(1) "Administrative costs" means direct staff, overhead and indirect costs of operating the program. Costs will be established using previous experience with cleanup management.

(2) "Budgeted programs" means those programs and law enforcement services made available to the community through a partner agency that have been previously planned, and are funded through revenue sources known to exist at the inception of the budget period.

(3) "Chemical" has that meaning set forth in ORS 475.405(1).

(4) "Cleanup costs" has the meaning set forth in ORS 475.405(3).

(5) "Cost share" is the assessed portion of the Department's

cleanup costs incurred as a result of assisting a partner agency, to be invoiced to that agency.

(6) "Current budget" means the law enforcement budget approved by the governing body [effective July 1, 1990 for the fiscal year commencing July 1, 1990] for the current fiscal year or period.

(7) "Department" means the Department of Environmental Quality, or its authorized representative.

(8) "Full cost" means all cleanup costs, as defined in ORS 475.405(3), incurred by the Department at or related to a site.

(9) "Generator Status" means the role accepted by either the Department or the partner agency where a registered hazardous waste generator is required for waste disposal, and at those times when materials are in transport with a contracted waste hauler.

(10) "Illegal Drug Cleanup Fund" is the funding account established under ORS 475.495.

(11) "Illegal Drug Lab Material Management" refers to the legal and responsible custody of hazardous materials and hazardous waste from the time they are received from a partner agency to the time of final disposal.

(12) "Invoice" for the purpose of these rules shall mean any written notification from the DEQ to the Partner agency used to identify the amount of money to be repaid to the DEQ for the illegal drug lab cleanup fund.

[(12)] (13) "Law Enforcement Agency" means any organization authorized under federal, State, or local law or ordinance to administer or enforce federal, State, or local laws or ordinances related to illegal drug manufacturing.

(14) "Lead agency" for the purpose of these rules will be the member of a joint law enforcement effort designated by that group to act as the partner agency in relation to the Department.

[(13)] (15) "Partner Agency" means any law enforcement agency (or consortium of law enforcement agencies) participating in drug lab cleanup in accordance with these rules.

[(14)] (16) "Qualified vendor" means any waste management company [or waste broker] able to provide proper waste management for the type of materials being managed, who is not currently in violation of any relevant statutes or rules.

[(15)] (17) "Residual contamination" means the residual odors and trace chemicals resulting from the operation of an illegal drug lab, or storage of materials associated with illegal drug manufacturing.

[(16)] (18) "Responsible Party" means a person or persons who is liable for cleanup costs under ORS 475.455.

[(17)] (19) "Scheduled substances" are chemicals listed by the State Board of Pharmacy and/or federal government as controlled substances.

[(18)] (20) "Site" has the meaning set forth in ORS 475.405(9). The Department may include as part of the site those locations to which chemicals have been taken.

[(19)] (21) "Site Cleanup" means the limited removal of chemicals related to the production of illegal drugs from any location identified by the participating agency to prevent further site contamination or criminal activity.

[(20)] (22) "Temporary Storage" means the secure warehousing of confiscated material being held as evidence away from the point of seizure by the partner agency [for as long as is needed to carry out proper disposal actions].

[(21)] (23) "TSDF" means a treatment, storage, or disposal facility that is a fully regulated and licensed waste management operation possessing proper approvals to handle the waste stream type originating from an illegal drug lab.

EXTENT OF ASSISTANCE TO BE PROVIDED

340-140-040 (1) Upon the request of a law enforcement agency, the Department of Environmental Quality may identify, cleanup, store and dispose of chemicals located at or resulting from an alleged drug manufacturing site. The law enforcement agency making the request will become the Partner agency.

(2) To arrange for assistance as provided in this rule the agency requesting services must contact the DEQ either directly or through the Oregon Emergency Response System, a 24 hour emergency reporting system at 1-800-452-0311.

(3) The Department will [establish a contract, or emergency purchase order, and] issue where needed a task order [agreement, with] to a qualified vendor(s) to provide waste management services. Upon receiving and accepting an official request for assistance, the Department will schedule or dispatch the contractor to the location identified. It will be the responsibility of the Department to see that the contractor is competent and able to respond in a reasonable time to the requested location.

(4) The Department's contractor may be tasked to manage all or part of the cleanup operation and disposal in stages, such as:

(a) Assessment of need for action and [development] implementation of appropriate pre-approved Department options.

(b) On-site cleanup and packaging of materials, and transportation to the [temporary storage point or] TSDF.

(c) On-site representative sampling, and/or packing of materials to be transported by the partner agency as evidence to a storage location of their choice.

[(c)] (d) If temporary storage has been used, cleanup may [or may not involve the return to the temporary storage location to remove the materials for disposal] take place at the storage location.

RESPONSIBILITIES FOR OWNERSHIP OF WASTE, STORAGE, AND SECURITY

340-140-050 (1) When the disposal of chemicals from an illegal drug lab cannot be accomplished immediately after [a cleanup] discovery, all confiscated materials will be the responsibility of the partner agency and declared to be potential evidence pending investigation of an alleged crime. The partner agency will remain responsible for the materials [not disposed] from the time of discovery to loading by the Department's contractor for final

transport to the TSDF or an alternate legal disposal. In those cases where the partner agency is the registered waste generator the responsibilities will continue as defined by federal and state statutes.

[(2) The health and safety of all persons other than the contractor's staff present at the cleanup site and at the temporary storage site, if any, are the sole responsibility of the agency requesting assistance.]

[(3) Errors made by the contractor in handling chemicals during any phase of the cleanup will be the responsibility of the contractor (as outlined in their contract) including any penalties that result.]

[(4)] (2) The Department will serve as the legal generator of any hazardous wastes identified at the time of loading for transport to disposal, unless:

(a) any such material is transported to disposal from a site owned by the partner agency or the governmental entity it represents and that site already has a waste generator identification number for some other generator. Drug lab waste shipped from such sites will not be counted in calculating the waste generator fees assessed by DEQ for other waste management activities;

(b) opportunity and justification exists to assign this responsibility to the responsible party;

[(c) the material confiscated does not have any currently available disposal option and will be stored by the partner agency; or]

[(d)] (c) the Department has been unable to secure sufficient funds to properly manage the materials and has returned control of the disposal to the partner agency.

[(5)] (3) The Department will make application to the Environmental Protection Agency for generator status when applicable, or assist the partner agency in achieving registration.

(a) Contractors moving hazardous waste from a cleanup site to disposal will use the registration number provided by, or through, the Department for that purpose.

(b) Partner agency contractors [Contractors] moving evidence from a cleanup site to storage designated by the partner agency will follow all applicable transporter regulations for transport of hazardous materials.

(c) As part of the work done for the Department, within 5 days of removing hazardous materials from an illegal drug lab site covered by ORS 453.855 - 453.992, contractors will provide copies of hazardous waste manifests, associated packing lists, and any related documentation of chemicals found at the site, to the Oregon Health Division, Office of Epidemiology and Health Statistics.

[(6)] (4) Security at the cleanup site or storage location for [on-scene persons and materials, both those confiscated and those left behind,] contractor's staff and the confiscated materials, will be provided by the agency requesting the cleanup assistance.

[TEMPORARY STORAGE] EVIDENCE MANAGEMENT

340-140-060 (1) After site cleanup operations there may be confiscated materials that must be [stored] managed by the partner agency receiving cleanup assistance under some conditions:

(a) Materials transported to temporary storage because they are needed in the prosecution of an alleged crime shall be labeled as evidence, and will be the responsibility of the partner agency involved.

[(b) Materials suspected to be hazardous and needing special handling, including some suspected hazardous waste, may need temporary storage until information is available to allow for safe handling and legal disposal.]

[(c)] (b) Materials, such as laboratory equipment and clean glassware, that present a hazard but are not hazardous waste may require temporary storage or local disposal options. Actions taken will be at the discretion of the partner agency. [This includes some materials with residual contamination and some scheduled substances.]

FUNDING PARTICIPATION

340-140-070 (1) The initial funds needed to support the operation of this program will be provided [through] by the Department [from various sources]. The applicable cost share will be invoiced to the partner agency by the [Illegal Drug Lab Cleanup Program] Department.

(2) Cost share will be dependent on the status of the partner agency requesting assistance:

(a) Partner agencies shall pay one half of all cleanup costs, including contractor fees, disposal fees, permit fees, transport fees, and administrative costs. This cost share payment will be invoiced to the agency requesting the assistance and will be due 30 days after receipt.

(b) Partner agencies that are [F]federal [G]government agencies will be asked to repay the full cost, and are not eligible for exemption from payment under OAR 340-140-070 (3).

(c) Partner agencies that represent joint law enforcement efforts and/or are acting as partner agencies as the result of a contract will collectively be responsible for cost share if no prior lead agency designation exists.

(3) Partner agencies may be exempted from payment of invoiced cost share under the following conditions:

(a) At the point in time the invoice is to be paid the partner agency would be able to pay the invoice only by taking funds away from programs in the current budget, the result of which would be a reduction in law enforcement services by that agency, and

(b) Sufficient funds are not available to pay the current invoice, but may be available to pay for subsequent cleanups, if the subsequent cleanup cost share is within budget when the invoice is received.

(c) Partner agencies as described in (2)(c) of this section may be exempt if their contract or interagency agreement specifies another member of the group to be responsible for all law enforcement costs, and that member is eligible for exemption.

(4) Partner agencies declaring an exemption shall return the Department's invoice within 30 days of receipt endorsed by an authorized representative of the partner agency certifying that a review of the available funds in the current budget has been undertaken and payment would result in a reduction of budgeted law enforcement services by that agency, and sufficient funds might be available for subsequent cleanups as described in (3)(b) of this section

(5) If a partner agency either does not pay the invoice or declare an exemption within 30 days of receipt, the Department will cease providing drug lab cleanup services to the partner agency until payment is received or an exemption is declared.

(6) The Department will attempt to manage accumulated small quantities of confiscated drug lab chemicals held by a partner agency as a single cleanup for the purposes of cost share when only one response is requested.

RECORDS OF CLEANUPS AND DISPOSALS

340-140-080 (1) The Department shall keep records of drug lab cleanups and resulting hazardous materials and waste management activities of its contractors.

(2) Each operation will be recorded in a file [accessible to the public] available in accordance with the public records law, and include:

- (a) the operation date based on the request for assistance,
- (b) the partner agency's name and representative making the request for assistance,
- (c) the location of the initial response,
- (d) the cleanup and disposal contractor's name,
- (e) the location of the disposal facility or temporary storage if used,
- (f) costs for each part of the operation,
- (g) cost recovery information if applicable,
- (h) and any related information.

RECOVERED FUNDS

340-140-090 (1) The Department may demand repayment of cleanup costs from the responsible party when that person is known to the Department.

(2) The partner agency shall provide the Department with a schedule of any court actions involving the prosecution of persons potentially liable for cleanup costs.

(3) The Department will prepare invoices for the actual or estimated amount of the total cleanup costs and forward these invoices to the District Attorney's office handling the criminal prosecution of the case prior to the scheduled hearing date.

(4) Where [no] a law enforcement agency [can] cannot assist the Department in cost recovery through court ordered restitution in a criminal proceeding, the partner agency may be requested to provide assistance [with civil action taken under ORS 475.485] in a civil cost recovery action.

(a) Partner agencies may be asked to provide information on the identity and whereabouts of the responsible party.

(b) Partner agencies may be requested to serve notices on behalf of the Department.

(5) All funds received by the Department identified as cost share, full cost repayment, restitution, and any other name used to describe repayment of drug lab cleanup expenses and administrative costs will be deposited in the Illegal Drug Cleanup Fund.

(6) When money is recovered from a responsible party [, as set forth in ORS 475.435 to 475.455] under ORS 475.405 through 475.495, such money will be deposited in the Illegal Drug Cleanup Fund.

CONFISCATED [PROPERTY] MATERIALS MANAGEMENT

340-140-100 (1) In carrying out cleanup operations, items with residual contamination, [other than] in addition to hazardous waste, may be taken into custody and turned over to the Department by a partner agency to protect public health and/or the environment. Any such items will be managed according to the appropriate statutes and rules for those materials. Unless otherwise regulated[,] these items may be handled in the following ways[, subject to applicable laws]:

(a) Items where the value after decontamination will be less than the cost of decontamination will be disposed of as solid waste, or to provide additional security, as hazardous waste.

(b) Items [of value] not characterized as hazardous waste [will] may be held [by the Department, or partner agency acting for the Department,] until an acceptable [buyer] recipient capable of decontaminating the items, and/or salvaging parts of the items, can be found. [Buyers] Recipients may be considered acceptable and capable of decontaminating or salvaging if they engage in that business professionally and have proper business licenses, and if required, Health Division approval. They must be willing to accept all risks and liabilities associated with ownership, operating, or re-selling potentially contaminated items.

(2) Vehicles in custody, either through the satisfaction of liens or confiscated as contaminated property, will not be sold or released until decontaminated to [practical limits] to meet Health Division requirements.

(3) [Items of value to be sold by the Department can be processed with other items disposed of by the law enforcement agency originally involved or the General Services Administration surplus property office.] All revenue generated by the Department under (1b) and (2) of this section [beyond administrative costs to the coordinating agency] will be deposited in the Illegal Drug Cleanup Fund.

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF ADOPTING) STATEMENT OF NEED
OAR Chapter 340) PRINCIPAL DOCUMENTS RELIED UPON
Division 140) STATEMENT OF FISCAL IMPACT
FOR PERMANENT RULES

Statutory Authority

ORS 475.405 through 475.495 authorizes rule adoption for the purpose of setting policy to define the relationship between the Department and those law enforcement agencies that request Department assistance with the management of hazardous chemicals and materials from illegal drug labs.

Need for the Rules

The proposed rules are necessary in order to establish the process and criteria for DEQ assistance to law enforcement agencies in the cleanup, storage, and disposal of hazardous chemicals located at illegal drug manufacturing sites. The statutory authority provides that the Department's assistance with cleanup is discretionary. The Department wishes to avoid ambiguity and unequal treatment of those asking for assistance by establishing policy through rules.

Principal Documents relied Upon

Legislative Fiscal Office report to the May 17, 1990 Emergency Board, Subcommittee. Adopted May 18 by the full Emergency Board.

Public testimony offered during the hearings process for these rules.

Federal Guidelines for the Cleanup of Clandestine Drug Labs, March 1990.

Fiscal and Economic Impact

Though the potential for economic impact resulting from the cleanup of an illegal drug lab is substantial, the historical record for these events clearly shows that only the small events

are left to be managed by local law enforcement. Moderate size labs have been turned over to county sheriff's and State Police control. The average cost share for those events covered by the cost share provision of the Temporary Rules has been \$1,399 for non-federal agencies. Over the past three years at more than 400 cleanups there have only been 11 cleanups where the cost share would have exceeded \$5,000. For typical events 50% of the costs will be near \$2,000.

The greatest impact will be felt by those law enforcement agencies that deal with large numbers of drug labs. Five agencies discover between 12 and 30 drug labs per year. It can be presumed that these agencies would be expected to contribute the most to cost share.

All Partner agencies will become exempt from cost share when there are no funds in their current budget with which to pay the invoice submitted by the Department without a reduction of existing services. In the time period between the adoption of temporary rules on July 1, 1990, and the writing of this report there have been 19 invoices for cost share issued. Most of the Partner agencies have been unable to pay cost share (see Attachment G).

Other provisions of the proposed rules that may result in an economic impact involve the change in policy toward storage of materials. There may be costs involved for local agencies when complying with court orders which specify that agency must store confiscated materials, in that the DEQ is prepared to only assist with the packing of the materials. To encourage acceptance of this change the DEQ will task contractors to prepare small representative samples of materials instead of the total volume of the waste.

CONTROLLED SUBSTANCES; EXPERIMENTAL DRUGS; CLEANUP 475.435

training and experience to investigate the safety and effectiveness of drugs on humans shall comply with ORS 475.305 to 475.375 which relate to written consent and disclosure of information. [1977 c.636 §8; 1979 c.674 §8]

ILLEGAL DRUG CLEANUP

475.405 Definitions for ORS 475.405 to 475.495. As used in ORS 475.405 to 475.495:

(1) "Chemical" means:

(a) Any material defined as a controlled substance or precursor substance as defined by ORS 475.005 to 475.375 and 475.805 to 475.999.

(b) Any substance used in the manufacture of a controlled substance as defined by ORS 475.005 to 475.375 and 475.805 to 475.999.

(c) Any material or substance designated by the Environmental Quality Commission under ORS 475.425.

(2) "Cleanup" includes any action the Department of Environmental Quality, or a person acting on behalf of the department, is required to take pursuant to a request ORS 475.415.

(3) "Cleanup costs" means reasonable costs that are attributable to or associated with cleanup at an alleged illegal drug manufacturing site, including but not limited to the costs of administration, investigation, legal or enforcement activities, contracts and health studies.

(4) "Commission" means the Environmental Quality Commission.

(5) "Department" means the Department of Environmental Quality.

(6) "Director" means the Director of the Department of Environmental Quality.

(7) "Fund" means the Illegal Drug Cleanup Fund established under ORS 475.495.

(8) "Owner or operator" means any person who owns, leases, operates or controls an alleged illegal drug manufacturing site. "Owner or operator" does not include a person, who, without participating in the management of an alleged illegal drug manufacturing site, holds indicia of ownership primarily to protect a security interest in the site.

(9) "Site" means an illegal drug manufacturing site. [1987 c.699 §1]

Note: 475.405 to 475.495 were enacted into law by the Legislative Assembly but were not added to or made a part of ORS chapter 475 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

475.415 Request for cleanup. Upon the request of a law enforcement agency, the

Department of Environmental Quality may identify, cleanup, store and dispose of chemicals located at an alleged illegal drug manufacturing site. [1987 c.699 §2]

Note: See note under 475.405.

475.425 Environmental Quality Commission rules; designation of chemicals.

(1) The Environmental Quality Commission shall consult with the law enforcement agencies in adopting rules necessary for the Department of Environmental Quality to carry out its responsibilities under ORS 475.415.

(2) By rule, the commission may designate as chemical for the purposes of ORS 475.405 to 475.495 any element, compound, mixture or solution that may be a controlled substance or precursor substance as defined by ORS 475.005 to 475.375 and 475.805 to 475.999 or used to illegally manufacture drugs. [1987 c.699 §3]

Note: See note under 475.405.

475.435 Authority of director. (1) Upon request of a law enforcement agency, the director:

(a) May undertake directly or by contract any cleanup action necessary to protect the public health, safety, welfare and the environment; or

(b) May authorize any person to carry out any cleanup action in accordance with any requirements of or directions from the director, if the director determines that the person will commence and complete the cleanup action properly and in a timely manner. However, the director in most circumstances shall not require the law enforcement agency to be responsible for carrying out the cleanup action.

(2) Nothing in ORS 475.415 to 475.455, 475.475 and 475.485 shall prevent the director from taking any emergency cleanup action necessary to protect public health, safety, welfare or the environment.

(3) The director may require a person liable under ORS 475.455 to conduct any cleanup action or related actions necessary to protect the public health, safety, welfare and the environment. The director's action under this subsection may include but need not be limited to issuing an order specifying the cleanup action the person must take.

(4) The director may request the Attorney General to bring an action or proceeding for legal or equitable relief, in the circuit court of the county in which the site is located or in Marion County, as may be necessary:

(a) To enforce an order issued under subsection (3) of this section; or

(b) To abate any imminent and substantial danger to the public health, safety, welfare or the environment related to a release.

(5) Notwithstanding any provision of ORS 183.310 to 183.550, any order issued by the director under subsection (3) of this section shall not be appealable to the commission or subject to judicial review.

(6) If any person who is liable under ORS 475.455 fails without sufficient cause to conduct a cleanup action as required by an order of the director, the person shall be liable to the department for the state's cleanup costs and for punitive damages not to exceed three times the amount of the state's cleanup costs.

(7) Nothing in this section is intended to interfere with, limit or abridge the authority of the State Fire Marshal or any other state agency or local unit of government relating to an emergency that presents a combustion or explosion hazard. [1987 c.699 §6]

Note: See note under 475.405.

475.445 Site entry; purposes. (1) Upon request of a law enforcement agency under ORS 475.415, the department or its authorized representative may enter any alleged illegal drug manufacturing site at any reasonable time to:

(a) Sample, inspect, examine and investigate;

(b) Examine and copy records and other information; or

(c) Carry out cleanup action authorized by ORS 475.415 to 475.455, 475.475 and 475.485.

(2) If any person refuses to provide information, documents, records or to allow entry under subsection (1) of this section, the department may request the Attorney General to seek from a court of competent jurisdiction an order requiring the person to provide such information, documents, records or to allow entry. [1987 c.699 §4]

Note: See note under 475.405.

475.455 Liability of certain persons for cleanup costs. (1) The following persons shall be strictly liable for those cleanup costs incurred by the state or any other person that are attributable to or associated with an alleged illegal drug manufacturing site and for damages for injury to or destruction of any natural resources caused by chemicals at the site:

(a) Any owner or operator at or during the time of the acts or omissions that resulted in a site being created or damage to natural resources.

(b) Any owner or operator who became the owner or operator after the time of the

acts or omissions that resulted in a site being created or damages, and who knew reasonably should have known of the site damages when the person first became owner or operator.

(c) Any owner or operator who obtained actual knowledge of the site or damage during the time the person was the owner or operator of the site and then subsequently transferred ownership or operation of the site to another person without disclosing such knowledge.

(d) Any person who, by any acts or omissions, caused, contributed to or exacerbated the site or damage, unless the acts or omissions were in material compliance with applicable laws, standards, regulations, licenses or permits.

(e) Any person who unlawfully hindered or delays entry to, investigation of or cleanup action at a site.

(2) Except as provided in paragraphs (1) to (e) of subsection (1) of this section and subsection (4) of this section, the following persons shall not be liable for cleanup costs incurred by the state or any other person that are attributable to or associated with the site, or for damages for injury to or destruction of any natural resources caused by chemicals at the site:

(a) Any owner or operator who became the owner or operator after the time of the acts or omissions that resulted in the site being created or damages, and who did not know and reasonably should not have known of the damages when the person first became the owner or operator.

(b) Any owner or operator of property that was contaminated by the migration of chemicals from real property not owned or operated by the person.

(c) Any owner or operator at or during the time of the acts or omissions that resulted in the site or damages, if the site or damage at the site was caused solely by or as a combination of the following:

(A) An act of God. "Act of God" means an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight.

(B) An act of war.

(C) Acts or omissions of a third party other than an employee or agent of the person asserting this defense, or other than a person whose acts or omissions occur in connection with a contractual relationship existing directly or indirectly, with the person asserting this defense. As used in this

subparagraph, "contractual relationship" includes but is not limited to land contracts, deeds or other instruments transferring title or possession.

(3) Except as provided in paragraphs (c) to (e) of subsection (1) of this section or subsection (4) of this section, the following persons shall not be liable for cleanup costs incurred by the state or any other person that are attributable to or associated with an alleged illegal drug manufacturing site, or for damages for injury to or destruction of any natural resources caused by chemicals at the site:

(a) A unit of state or local government that acquired ownership or control of a site in the following ways:

(A) Involuntarily by virtue of its function as sovereign, including but not limited to escheat, bankruptcy, tax delinquency or abandonment; or

(B) Through the exercise of eminent domain authority by purchase or condemnation.

(b) A person who acquired a site by inheritance or bequest.

(4) Notwithstanding the exclusions from liability provided for specified persons in subsections (2) and (3) of this section, such persons shall be liable for cleanup costs incurred by the state or any other person that are attributable to or associated with a site, and for damages for injury to or destruction of any natural resources caused by chemicals at a site, to the extent that the person's acts or omissions contribute to such costs or damages, if the person:

(a) Obtained actual knowledge of the chemicals at a site or damages and then failed to promptly notify the department and exercise due care with respect to the chemicals concerned, taking into consideration the characteristics of the chemicals in light of all relevant facts and circumstances; or

(b) Failed to take reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the reasonably foreseeable consequences of such acts or omissions.

(5)(a) No indemnification, hold harmless, or similar agreement or conveyance shall be effective to transfer from any person who may be liable under this section, to any other person, the liability imposed under this section. Nothing in this section shall bar any agreement to insure, hold harmless or indemnify a party to such agreement for any liability under this section.

(b) A person who is liable under this section shall not be barred from seeking contribution from any other person for liability under this section.

(c) Nothing in ORS 475.415 to 475.455, 475.475 and 475.485 shall bar a cause of action that a person liable under this section or a guarantor has or would have by reason of subrogation or otherwise against any person.

(d) Nothing in this section shall restrict any right that the state or any person might have under federal statute, common law or other state statute to recover cleanup costs or to seek any other relief related to the cleanup of an alleged illegal drug manufacturing site.

(6) To establish, for purposes of paragraph (b) of subsection (1) of this section or paragraph (a) of subsection (2) of this section, that the person did or did not have reason to know, the person must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability.

(7)(a) Except as provided in paragraph (b) of this subsection, no person shall be liable under ORS 475.415 to 475.455, 475.475 and 475.485 for costs or damages as a result of actions taken or omitted in the course of rendering care, assistance or advice in accordance with rules adopted by the commission or at the direction of the department or its authorized representative, with respect to an incident creating a danger to public health, safety, welfare or the environment as a result of any cleanup of a site. This paragraph shall not preclude liability for costs or damages as the result of negligence on the part of such person.

(b) No state or local government shall be liable under this section for costs or damages as a result of actions taken in response to an emergency created by the chemicals at or generated by or from a site owned by another person. This paragraph shall not preclude liability for costs or damages as a result of gross negligence or intentional misconduct by the state or local government. For the purpose of this paragraph, reckless, wilful or wanton misconduct shall constitute gross negligence.

(c) This subsection shall not alter the liability of any person covered by subsection (1) of this section. [1987 c.699 §5]

Note: See note under 475.405.

475.465 Liability of state for cleanup. Notwithstanding any other provision of law, the State of Oregon, the Environmental Quality Commission and the Department of Environmental Quality and their officers, employees and agents shall not be liable to a person possessing or owning chemicals located at an alleged illegal drug manufactur-

ing site for any claims or actions arising from the identification, cleanup, storage or disposal of such chemicals by the Department of Environmental Quality. [1987 c.699 §10]

Note: See note under 475.405.

475.475 Department record of costs; collection of costs. (1) The department shall keep a record of the state's cleanup costs.

(2) Based on the record compiled by the department under subsection (1) of this section, the department shall require any person liable under ORS 475.435 or 475.455 to pay the amount of the state's cleanup costs and, if applicable, punitive damages.

(3) If the state's cleanup costs and punitive damages are not paid by the liable person to the department within 45 days after receipt of notice that such costs and damages are due and owing, the Attorney General, at the request of the director, shall bring an action in the name of the State of Oregon in a court of competent jurisdiction to recover the amount owed, plus reasonable legal expenses.

(4) All moneys received by the department under this section shall be deposited in the Illegal Drug Cleanup Fund established under ORS 475.495. [1987 c.699 §7]

Note: See note under 475.405.

475.485 Costs and penalties as lien; enforcement of lien. (1) All of the state's cleanup costs, penalties and punitive damages for which a person is liable to the state under ORS 475.435 or 475.455 shall constitute a lien upon any real and personal property owned by the person.

(2) At the department's discretion, the department may file a claim of lien on real property or a claim of lien on personal property. The department shall file a claim of lien on real property to be charged with a lien under this section with the recording officer of each county in which the real property is located and shall file a claim of lien on personal property to be charged with a lien under this section with the Secretary of State. The lien shall attach and become enforceable on the day of such filing. The lien claim shall contain:

- (a) A statement of the demand;
- (b) The name of the person against whose property the lien attaches;
- (c) A description of the property charged with the lien sufficient for identification; and
- (d) A statement of the failure of the person to conduct cleanup action and pay penalties and damages as required.

(3) The lien created by this section may be foreclosed by a suit on real and personal property in the circuit court in the manner provided by law for the foreclosure of other liens.

(4) Nothing in this section shall affect the right of the state to bring an action against any person to recover all costs and damages for which the person is liable under ORS 475.435 or 475.455.

(5) A lien created under this section shall have priority over any claim of the state under ORS 166.715 to 166.735 or any local government forfeiture ordinance or regulation. [1987 c.699 §8]

Note: See note under 475.405.

475.495 Illegal Drug Cleanup Fund; sources; uses. (1) The Illegal Drug Cleanup Fund is established separate and distinct from the General Fund in the State Treasury.

(2) The following moneys shall be deposited into the State Treasury and credited to the Illegal Drug Cleanup Fund:

(a) Moneys recovered or otherwise received from responsible parties for cleanup costs;

(b) Moneys received from a state agency, local government unit or any agency of a local government unit for cleanup of illegal drug manufacturing sites;

(c) Moneys received from the Federal Government for cleanup of illegal drug manufacturing sites; and

(d) Any penalty, fine or punitive damages recovered under ORS 475.435, 475.455 or 475.485.

(3) The State Treasurer may invest and reinvest moneys in the Illegal Drug Cleanup Fund in the manner provided by law. Interest earned by the fund shall be credited to the fund.

(4) The moneys in the Illegal Drug Cleanup Fund are appropriated continuously to the department to be used as provided for in subsection (5) of this section.

(5) Moneys in the Illegal Drug Cleanup Fund may be used for the following purposes:

(a) Payment of the state's cleanup costs; and

(b) Funding any action or activity authorized by ORS 475.415 to 475.455, 475.475 and 475.485. [1987 c.699 §9; 1989 c.966 §56]

Note: See note under 475.405.

475.505 [1979 c.253 §1; repealed by 1987 c.75 §1]

475.510 [1979 c.253 §2; repealed by 1987 c.75 §1]

475.515 [1979 c.253 §3; repealed by 1987 c.75 §1]

Attachment D
Agenda Item: I
Meeting Date: 12-14-90

MEMORANDUM

TO: Environmental Quality Commission
FROM: Ed Wilson
SUBJECT: Work Group Recommendation

To assist in the development of these rules the Department requested knowledgeable representatives from the affected community to review the rules and make suggestions about improvements and clarifications.

Volunteering their time and expertise were:

Jackie Bloom, City of Portland
Lt. Vic Mann, City of Eugene
Lt. Bob Miller, Oregon State Police
Valerie Salisbury, League of Oregon Cities
Lt. Gary Self, Washington County Sheriff's Office

Advice was also offered by:

Olivia Clark, City of Salem
Sgt. Ed Mouery, Oregon State Police
Paul Snider, Association of Oregon Counties

Working from the Temporary Rules this group identified areas where the meaning of the rule was not clear. They also pointed out those parts of the rule where law enforcement could not accept the tasks as defined. On the issue of the cost share the group presented the perspective of the law enforcement agency being termed the "Partner agency", and the difficulties that budgeting for drug lab cleanup could create.

Summary

Acceptance of the modified draft proposed rules was made on November 9, 1990, with the exception of any provision through which 50% of the costs of illegal drug lab cleanup are passed to the local government. The group strongly suggested the Commission set the finding of an alternate funding source as a goal for the Department.

HEARING OFFICER REPORTS

PUBLIC HEARINGS:

Public hearings were conducted by the Department's staff on September 12, in Portland, September 13, in Eugene, and on September 14, in Medford. A public notice of these hearings was sent out prior to the hearings.

The meeting in Portland was attended by 12 persons, 10 of whom presented testimony.

Capt. Jim Slauson	Gresham Police
Capt. Roger Haven	Portland Police
Det. Jim Bellah	Portland Police
Valerie Salisbury	League of Oregon Cities
Chief Don Newell	Beaverton Police
Tom Johnson	Forest Grove Police
Tom Robinson	City of Hillsboro
Lt. Gary Self	Wa. Co. Sheriff's Office
Steve Hausotter	Gresham Fire Dept.
Dennis Fitz	Mult. Co. Sheriff's Office

The meeting in Eugene was attended by 7 persons, 5 of whom presented testimony.

Dennis Dinsmorb	SCINT (South Coast Interagency Narcotics Team)
Chief Jim Cahill	Junction City Police
Capt. Jim Horton	Eugene Dept. Public Safety
Sgt. Rick Siel	INET (Interagency Narcotics Enforcement Team - Lane Co.)
Commander Larry Worsham	Cottage Grove Police

The meeting in Medford was attended by 15 persons, 9 of whom presented testimony.

Rep. Eldon Johnson	State Representative District 51
Sen. Lenn L. Hannon	State Senate District 26
Linda Casey	Medford City Council
Sheriff C. W. Smith	Jackson County
Sue Kupillas, Chair	Jackson County Commission
Jerry Jacobson	Oregon State Police
Sgt. Michael R. Sweeny	JacNET (Jackson County Narcotics Enforcement Team)
Valerie Gibson	resident of Central Point
Sgt. Ronald R. Hosek	Oregon State Police

MEMORANDUM

TO: Environmental Quality Commission
FROM: Ed Wilson
SUBJECT: Public Meeting in Portland on 9/12/90.

Summary of comments:

Gresham Police, Capt. Slauson:

Commented that there had been an error in the timing of the rules with regard to the budget cycles of police, and that it is unlikely future budgets will have adequate funds for cleanup. Noted the need for clarification on the selection of the partner agency responsible for cost share when working on joint efforts. At the end of the meeting Capt. Slauson recapped the issues and encouraged cooperation.

Portland Police, Capt. Haven:

Discussed the legislative directive and budget documents associated with the original passage of the drug lab statute. He stated that the criminals involved have normally no assets to confiscate. Suggested that the E-Board's directive to DEQ to adopt rules without notice to law enforcement has annoyed many people.

Portland Police, Det. Bellah:

Expressed frustration with elected officials who have invited him to address the on a number of occasions, and continue to presume that there is money to be captured from the meth cooks.

League of Oregon Cities, Valerie Salisbury:

Comments offered point out the Leagues questioning that the cleanup of drug lab chemicals is a law enforcement issue. There are concerns expressed that part of the rules place an unintended and unacceptable liability on law enforcement for site safety. There is much uncertainty at the beginning of any cleanup as to the final costs. This

uncertainty presents a significant problem for the agency being assisted. The exemption provisions of the rule apparently have not resolved that issue. Budgeting for future participation is difficult as long as the costs are unknown. Issues of equity for those agencies paying only because they are not exempt is mentioned as not resolved. In conclusion a statement is made that the cities represented are willing to work in good faith toward funding solutions.

City of Beaverton, Police Chief Don Newell:

Comments express agreement with the Gresham Police Capt. Slauson, and further challenge the Department adoption of temporary rules that require cost share based on E-Board analyst recommendation only. Further comments note the low value of forfeited property and the long time frames common between the arrest and receipt of the revenue from that source.

Forrest Grove, Tom Johnson:

Presented a perspective of the very small law enforcement agency being unable to benefit from what ever recovered fund were available and drug lab crime is attracted to the small communities. Expressed agreement with comments made by the League representative, Valerie Salisbury.

Hillsboro, Tom Robinson:

Expressed an opinion that the law enforcement agencies may slow down in their efforts to address drug labs if the backup funding is not provided. Suggests that a risk management pool be established.

Washington County, Sheriff's Office Lt. Gary Self:

Concurred with most of the other presentations, reiterated the problems of inequity and budget timing. Expressed agreement with the perspective, and asked as a question, why the cleanup of the labs is not a DEQ issue anyway.

Gresham Fire Department, Steve Hausotter:

Concurred with Lt. Self and added that, historically, fire services have never actually done cleanup work. Suggests that DEQ look at how other states fund this problem, which is to pass the costs on to all taxpayers.

Multnomah County, Sheriff's Office, Dennis Fitz:

Discussed asset forfeiture and interagency arrangements. reiterated the lack of funding from that source and offered examples. Comment continues to express dedication to the handling of drug labs due to the risks to the community.

MEMORANDUM

TO: Environmental Quality Commission
FROM: Ed Wilson
SUBJECT: Public Meeting in Eugene on 9/13/90.

Summary of comments:

South Coast Interagency Narcotics Team, Dennis Dinsmorb:

Described the SCINT organization and addressed cost share as never having been discussed to his knowledge. Comment offered a statistical demonstration of how the area served by SCINT is quite small in population compared to the number of cleanup events. That the typical cleanup in that region is several times as large as in the north valley. Objected to the DEQ passing administrative costs on to the local agencies. Suggests including DEQ in some way in the overall forfeiture distribution scheme.

Junction City, Police Chief Mike Cahill:

Speaking for the Police Chief's Association expressed concerns about the DEQ's hesitancy to participate in a war on drugs. Stated the Association had never endorsed any cost share formula. Presented a Junction City Council Resolution (no.537) opposing cost share.

Eugene Dept. of Public Safety, Capt. James Horton

Representing the Central Lane Law Enforcement and Policy Board, presented five points: opposition to the cost share, notice that no funds are currently budgeted for cleanups, that DEQ should be able to handle its own cost recovery from criminals as are the law enforcement people, cleanups are a state not a local problem, disagreement with the supposition an agreement or pre-arranged cost share was envisioned by the 87 legislature.

Eugene Police Department, Sgt. Rick Siel:

On behalf of the Interagency Narcotics
Enforcement Team concurred with Capt. Horton.

Cottage Grove Police, Commander Larry Worsham:

Expressed concern that the problem of cleanups is a statewide issue and should be addressed as such. Discussed a letter from the City Manager describing the limited funds available and opposition to planning a contingency fund when costs are not controllable. Voiced disagreement with the portion of the temporary rule staff report indicating that most police agencies will not be affected by the rules. The letter continues to note that funding for local drug enforcement has been provided through a tax levy and increases in that levy cost would probably cause it to fail in the next election.

MEMORANDUM

TO: Environmental Quality Commission
FROM: Ed Wilson
SUBJECT: Public Meeting in Medford on 9/14/90.

Summary of comments:

State Representative Eldon Johnson, District 51:

Recalls that as a member of the House Energy and Environment Committee that reviewed the original bill there was no discussion of cost share. That the comment on the DEQ's budget page must refer to discussions in the Ways and Means Committee, which should not have happened. Local government is not able to pay the cost of cleanup and is being passed that responsibility by the state government. Requests that the rules be set aside until the legislature can review the funding problem.

Senator Lenn L. Hannon, District 26:

Concurred with Representative Johnson in asking the DEQ to set aside the rules. Offered that his review of the minutes of the E-Board do not support the cost share provisions of the rules as proposed. Suggests that DEQ work with the local agencies and the Legislature to resolve this issue.

Medford City Council, Linda Casey:

Expressed concerns about the danger that local law enforcement people are exposed to dealing with drug labs, that the DEQ should provide trained people to do this work. Concerns about inadequate local storage facilities for hazardous materials. Further notes the limits on local funding and problems with cost share.

Jackson County, Sheriff C. W. Smith:

Speaking for both the County and the Sheriffs Association objections were expressed related to cost share and the lack of opportunity afforded the affected agencies prior to

adoption of the temporary rules. Further comments express doubts that a forfeiture based funding plan could solve the problem, and a national plan to secure funds from the manufacturers of chemicals is desirable.

Jackson County, County Commission Chair Sue Kupillas:

Directed attention to the limited resources of the County, and that much of their resources are related to timber the future may bring harder times. Reference is made as well to the possibility of limited resources if property tax limits are passed in the election. Points are made about the rules not addressing the oversight of cleanup and the responsibilities for protection of ground water and other risks. Comments include a criticism of the cost share portion of the rule, and suggest that the County be allowed to determine the cost of cleanup of which DEQ should be paying half. This proposal is based on the true cost of drug lab enforcement in addition to the expense for DEQ's role. A suggestion is made that the County get any revenue derived from the liquidation of drug lab assets, and that the rules provide protection for the County if there are liabilities involved in doing that.

Oregon State Police, Jerry Jacobson:

Opposed the cost share provision of the rule.

Jackson County Narcotics Team, Sgt. Michael Sweeny:

Supported the points made by previous presenters. Added that the DEQ is not correct in asking law enforcement to fund part of an environmental program. DEQ should not have the authority to direct a law enforcement agency to provide security, storage, or other duties listed as responsibilities of the assisted (partner) agency. Further that the statutes direct DEQ to do a number of things that are not being done at this time.

Willow Springs resident, Valerie Gibson:

As a neighbor of a contaminated drug lab site Ms. Gibson questions the process that is applied to the remedial cleanup of such sites. Comments are offered on the condition of the

site and apparent dangers that to date have not been removed by any government agency. Criticism was made of the States inaction related to forcing the property owner to act.

Oregon State Police, Sgt. Ron Hosek:

Brief comments were offers about the disruption these rules have caused in the cooperative spirit the program has enjoyed. Concurrence is mentioned with the comments of other presenters. A suggestion is made to change the optional aspect of the cleanup ORS to a "shall" assist, thereby making the DEQ more responsible for the outcome. Objections are also made to the portions of the temporary rule that places responsibilities on the local police for the security of materials and the possible storage of materials.

MEMORANDUM

TO: Environmental Quality Commission
FROM: Ed Wilson
SUBJECT: Written Comment Submitted.

The Department accepted written comment on the proposed permanent rules through October 19, 1990. All letters received are in the Department's files. The 28 letters are summarized as follows:

Summary of comments:

City of Aurora, City Council:

By resolution #202 City Council opposes the proposed rules cost share provision, and further resolves that the Commission should work with the Legislature to establish a dedicated fund.

City of Condon, Chris Kennedy:

Letter expressing City budget difficulties that would prevent any cost share.

City of Coquille, Mayor Pierce and City Council, Joseph G. Wolf:

Letter noting that cost share has the affect of penalizing law enforcement for trying to wage the war on drugs. Suggests that liens on property be the source of funding.

City of Cottage Grove, Jeff Towery:

Letter recognizing that the exemption from cost share is only a temporary relief, that eventually money would have to be budgeted. Expresses concerns that the City has no control over the contractors sent to assist them, and that drug labs are not a local problem, rather a statewide issue.

DHR - Health Division, Dr. Jane Gordon:

Letter expressing a number of concerns for the viability of both the DEQ's program and the HD's new program if the Law enforcement community is unable to enforce anti-drug manufacturing statutes due to budget constraints. Further Dr. Gordon cautions the DEQ about the expenses and liabilities

involved in forfeited properties. The letter requests further that section 050 (5) (c) be amended to allow data to be shared by HD.

City of Dundee, David A. Strand:

Letter points out that there are many costs related to the raid on a lab and that the rules have not addressed any way for the DEQ to pay money to a law enforcement agency should cost recovery exceed DEQ's cost.

City of Fairview, Mayor Carlson:

Letter brings attention to the current fiscal hardships endured by small cities and asks that the rule not be adopted.

City of Gresham, Mayor McRobert:

Letter objects to the cost share provision of the rules, and with the E-Board not allowing comment prior to its directions to DEQ in May.

City of Gresham, Police Capt. Slauson.

A letter presents five points to be considered, being; there was not time to prepare in the current budget for cost share due to the timing of the rules adoption, law enforcement representatives were not invited to present relevant objection to the Emergency Board in May that may have altered the Board's opinion, many police actions are joint efforts and the cost share responsibility is not clear, confiscated materials held by police are not guaranteed to be managed in the Temporary Rules, and that drug lab cleanup is not entirely a law enforcement problem.

City of Hermiston, William A. Peterson Jr.:

Letter points out that the issue of cost share is similar to other fiscal responsibilities being put back on local government, and that citizens are unable to understand when local government charges them for these services.

Jackson County, Commissioner Kupillas, Chair:

This letter is an offer to assist in the drafting of legislative action to fund drug lab cleanup. Also pointed out is that the

development of a solution must include the input of the communities affected.

City of La Grande, City Council:

Council has passed resolution #4099, which opposes the cost share aspect of the proposed rules and further resolves that the Commission and the Legislature establish a dedicated fund for the program.

City of La Grande, Police Chief Courtney:

Letter points out that the drug lab issue is a statewide issue not a local problem.

Lane County DA's Office, Robert D. Lane:

Letter comments on the appropriateness of local government as DEQ's funding source, and further that presuming that forfeiture money is a solution is also incorrect since there is no connection between the meth problem and the forfeiture money.

Lane County Sheriff's Office, Sheriff Burks:

Letter identifies objections to the lack of opportunity to comment prior to the E-Board directions to DEQ, challenges the idea that cost share was ever discussed during the original 1987 SB 1002 discussions, and points out that forfeiture dollars will not even cover the cost of drug lab raids let alone DEQ costs.

League of Oregon Cities, Valerie Salisbury:

Letter criticizes the role played by DEQ in the waste management process, in that many liabilities still are left with the local agencies, and they do not have any control of the cleanup activities. It is pointed out that the budgets for law enforcement agencies do not include discretionary funds adequate, if at all, to fund cleanups no matter what the size of the agency. The exemption from payment will not provide revenue for the program from such agencies, and may create a false impression of shirked responsibilities.

City of Lebanon, Police Chief Richmond:

Letter points out the timing difficulty caused by the cost share requirement coming right when budgets were already final.

City of Lincoln City, City Manager Stockton and City Council:

By resolution 90-35 Council opposes the cost share provision of the proposed rules and further resolves that the Commission work with the Legislature to establish a dedicated fund.

City of Madras, Mayor Sites and City Council:

By resolution # 19-90 the Council opposes the cost share provision of the proposed rules and further resolves that the Commission work with the Legislature to provide dedicated funds.

Malheur County District Attorney, Patricia Sullivan:

Letter identifies that the County is unable to budget cost share, and that in an effort to participate in funding a voluntary allocation of a portion of future forfeiture money has been offered.

City of Philomath, Mayor Gay and City Council:

By resolution 90-26 the Council opposes the proposed cost share provision of the rules, and in its place suggests a blanket exemption for all communities of less than 10,000 citizens.

City of Portland, Police Chief Walker:

Letter traces the IDLC history, paying attention to issues of cost share. Describes the typical criminal involved as destitute. Explains that the City is in as much of a fiscal bind with respect to police budget as are other cities. Comments are made on the DEQ notice that temporary storage practices may change. The Chief notes that the City is ordered by the court to store some materials, and he feels that the rules place an unequal cost share burden on some agencies.

City of Seaside, Mayor Williams and City Council:

By resolution #3231 City Council opposes the cost share provision of the proposed rules and further resolves that the Commission should work with the Legislature to provide a dedicated fund.

South Coast Interagency Narcotics Team (SCINT), Dennis Dinsmore:

Letter points out that SCINT is an interagency group funded by multiple agencies. That there is no way for a cost share to be paid, and therefore SCINT will be exempt.

City of Springfield, Capt. Golden:

Letter presents and supports the Central Lane County Law Enforcement Policy Board position on cleanups. That policy includes that cleanups are a statewide issue, budgets cannot be prepared for cleanups, DEQ has the ability to seize and forfeit, there never was an understanding that locals would pay cost share, and that a great deal of money is already being spent by the City on drug labs.

Union County Sheriff's Office, Sheriff Weir:

Letter expresses concern that the rules will have a negative impact on law enforcement programs. Notes that if interagency cooperation diminishes, criminal activity may increase. Encourages that the State accept the burden of full funding to maintain continuity and show leadership.

City of Waldport, City Council:

Council opposes the cost share provision of the proposed rules with resolution #645.

Washington County Sheriff's Office, Sheriff Probstfield:

Letter encourages the continued DEQ operation of the cleanup program with State Superfund dollars. Points out that other means of operation are less cost effective. Comments that the cost of rehabilitation at contaminated properties can be more than the property will bring at sale.

DEPARTMENT RESPONSE TO TESTIMONY

COMMENT - Concern about the 50% cost share requirement

Response:

All of the testimony at the public meetings and response by written comment included an objection to the DEQ charging for the drug lab cleanup services. The provisions of the rules that identify a cost share requirement are, by their inclusion in the rules, a condition of receiving assistance. This 'condition' was made part of the rules on the direction of the Emergency Board. Funding for the continued operation of the program is dependent on this provision being in the rules even if the "partner agency" is qualified for exemption from payment and General Fund dollars are used to compensate for that exemption.

Sen. Hannon, Rep. Johnson, and others expressed concern that the basis for the charging of any part of the cost of cleanups did not exist in the original 1987 statute. It is the Department's understanding that the Emergency Board directed the DEQ to seek the cost share method of funding because the members of the Board feel it was a commitment made by local government when the drug lab cleanup program was designed.

COMMENT - Objection to the short time period prior to temporary rule adoption

Response:

The Legislative Emergency Board directed the Department to propose rules for adoption at their May meeting. The proposed rules needed to be in place on July 1, 1990 to comply with the Emergency Board's directive. The Department has discussed the general topic of cost share with the program's advisory committee, which included law enforcement representatives in 1987 and 1988, and further the Department made an effort to notify those expected to be affected during the six month life of the proposed temporary rule. Despite a short time frame within which to draft rules, all requirements of administrative procedures for temporary rules were followed.

COMMENT - Objection to the timing of the rules with respect to budget

Response:

Capt. Slauson, Lt. Self, and other people responding complained that there was no time to include any money in the current budget to be used to pay for cleanups. The Department dealt with this

issue by making it a case specific exemption from the cost share provision of the rule. "Partner agencies" will have the responsibility of reviewing each invoice from the Department to determine if their budget can adsorb those costs. The Department's expectation is that funding levels in partner agency budgets will change during the budget cycle as the predicted expenses are realized or avoided, new funds are added, and the cost share invoices from DEQ potentially vary in amount or frequency.

COMMENT - Problems with cost recovery from criminals

Response:

Det. Bellah, Deputy Fitz, Chief Walker and others pointed out that some of the money they were being asked to use to pay cost share was to come from those convicted of the crime. However, in almost all cases there is no money connected with meth labs. The Department is well aware of this obstacle, and in fact has not had success with its own cost recovery due in part to this situation. The Emergency Board directive to the Department, reflected in the rules, does not limit an agency's budget to any particular source from which funds can be used. Any funds available, except at the expense of a current funded law enforcement service, may be used to pay cost share.

COMMENT - Control of costs is not available to law enforcement

Response:

Sue Kupillas, and Jeff Towery noted that the control of the cleanup contractors and therefore the cost of cleanup is handled by the DEQ, yet the cost share is required of the partner agency. The circumstance described is a result of the Department's obligation to conduct the cleanups in compliance with statutes and rules other than those being proposed. Where there have been options in specific cleanups the Department relies on the provisions of ORS 475.405(2), ORS 475.415, and ORS 475.435 to define the scope of a cleanup.

COMMENT - Exploring funding sources

Response:

Mayor Pierce, representing the City of Coquille, suggested that the Department fund the program by putting liens on drug lab sites. The Department has found in most cases that lab sites are not owned by the criminal, and that a third party defense may protect landlords from paying costs. In any case, liens won't generate adequate revenue to fund the program.

Sheriff Smith suggested that the chemical companies pay the cleanup cost. This suggestion would require legislative action to

implement. The Department doesn't have authority to assess fees or taxes on chemical companies or others to fund the drug lab program. The Department may explore this option further during the 1991 legislative session.

COMMENT - Determination of the "Partner agency"

Response:

Capt. Slauson, and Dennis Dinsmorb questioned when a member of an inter-agency team would be expected to pay cost share. The proposed rules have been modified to clarify how a member of such a group is determined to be the "partner agency" and its responsibility to determine whether it must pay the cost share or declare an exemption.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: November 9, 1990

TO: Drug Lab Files

FROM: Ed Wilson

SUBJECT: Information on response to cost share.

<u>file name</u>	<u>agency invoiced</u>	<u>amount</u>	<u>exempt</u>	<u>paying</u>
b165-thomas	Linn County	\$689.99	X	
b168-stark	Multnomah County	\$1,456.98	X (1)	
b169-brnsde	Multnomah County	\$1,758.87	X	
b170-holman	Portland	\$672.12	X	
b171-myrtle	Douglas County (2)	\$1,446.72	X (1)	
b172-hwy99	Cottage Grove	\$988.12	X	
b173-downs	Cottage Grove	\$3,230.36	X	
b174-eastmn	Multnomah County(2)	\$446.79	X (1)	
"	Gresham	\$350.55		X (3)
b176-butler	Eugene, "INET"	\$1,952.14	X (5)	

b166-flavel	Portland	\$718.61	X	
b167-chambr	Eugene, "INET"	\$1,893.46	X (5)	
b177-coos	State Police	\$1,228.89		X (4)
b179-king	Clackamas County	\$903.78		X
b180-schmer	Portland	\$1,537.88	X	
a262-carltn	Portland	\$1,444.76	X	
b181-tvhw	ATF (federal)	\$989.39		X (4)
b182-spruce	Florence	\$2,270.58	X	
b183-albina	Portland	\$804.85	X	
b184-lowell	USFS (federal)	\$1,220.00		X (4)

(1) declaration of exemption has been predicted though the forms have not been returned.

(2) the first agency invoiced has notified DEQ that the invoice needs to be presented to a task force team member.

(3) a portion of the invoice will be paid, but not as cost share, rather at 100% by prearrangement.

(4) plan to pay, but still under review.

(5) a payment of less than the 50% is being contemplated.

Meeting Date: 12/14/90
Agenda Item: H

These rules are consistent with other policies and rules.

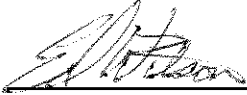
ISSUES FOR COMMISSION TO RESOLVE:

1. Whether the proposed rules adequately address the directive of the legislature and the affected community's needs.
2. Whether to support legislation, if introduced, or other action to address the issue.

INTENDED FOLLOWUP ACTIONS:

Upon EQC adoption, file the Permanent Rule with the Secretary of State and Legislative Counsel, and provide post-adoption notice of the Permanent rule to the affected persons.

Approved:

Section: 

Division: 

Director: 

Report Prepared By: Ed Wilson

Phone: 229-5373

Date Prepared: November 21, 1990

(Ed Wilson)
(druglab)
(November 21, 1990)



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: December 14, 1990

Agenda Item: I

Division: MSD

Section: Finance

SUBJECT:

Proposed Adoption of Rule Amendments to the Pollution Control Bond Fund Rules.

PURPOSE:

The proposed rule amendments are requested to enable the Department of Environmental Quality (DEQ or Department) to recover its actual costs of issuing general obligation bonds and using the proceeds to purchase pollution control bonds from local governments. The amendments would make permanent emergency rules that were adopted by the Environmental Quality Commission (EQC or Commission) on August 10, 1990. The potential need for emergency rule amendments was identified in the staff report to the EQC dated June 29, 1990.

The limitations of the existing permanent rules do not give the Department the flexibility to respond to unique financing structures. Complicated, multi-year financing agreements, such as the one now being used by the Department to address the sewerage of unincorporated areas of mid-Multnomah County, impose different demands and higher costs on the Department than were contemplated in the original rules.

Meeting Date: December 14, 1990
Agenda Item: I
Page 2

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Potential Strategy, Policy, or Rules
 - Agenda Item ___ for Current Meeting
 - Other: (specify)

- Authorize Rulemaking Hearing (for Permanent Rules)
- Adopt Rules
 - Proposed Rules Attachment A
 - Rulemaking Statements for Permanent Rules Attachment B
 - Fiscal and Economic Impact Statement Attachment B
 - Public Notice Attachment C

- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order Attachment ___

- Approve Department Recommendation
 - Variance Request Attachment ___
 - Exception to Rule Attachment ___
 - Informational Report Attachment ___
 - Other: (specify) Attachment ___

DESCRIPTION OF REQUESTED ACTION:

EQC approval of administrative rule amendments to OAR Chapter 340, Division 81 that will allow the Department to recover its bond purchase and issuance costs in a manner that is both flexible and financially prudent.

AUTHORITY/NEED FOR ACTION:

- Required by Statute: _____ Attachment ___
Enactment Date: _____
- Statutory Authority: ORS 468.195 - .220 Attachment D
- Pursuant to Rule: _____ Attachment ___
- Pursuant to Federal Law/Rule: _____ Attachment ___

- Other: Attachment ___

- Time Constraints:

DEVELOPMENTAL BACKGROUND:

<input type="checkbox"/>	Advisory Committee Report/Recommendation	Attachment	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Hearing Officer's Report/Recommendations	Attachment	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Response to Testimony/Comments	Attachment	<input type="checkbox"/>
<input type="checkbox"/>	Prior EQC Agenda Items: (list)		
	Agenda Item M1, August 10, 1990. Pollution Control Bonds: Adoption of Emergency Rule Amendments.	Attachment	<input type="checkbox"/>
<input type="checkbox"/>	Other Related Reports/Rules/Statutes:	Attachment	<input type="checkbox"/>
<input type="checkbox"/>	Supplemental Background Information	Attachment	<input type="checkbox"/>

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The potentially affected community includes any local government that may decide to sell pollution control bonds to the Department. The rule amendments will make DEQ's participation feasible, even with complex and costly financing agreements.

The only parties immediately affected by the rule amendments would be the Cities of Gresham and Portland. The Master Agreement entered into by the EQC and the Cities of Gresham and Portland provides that DEQ's costs of issuing General Obligation Pollution Control Bonds and its costs of purchasing the Cities' Special Assessment Bonds shall be included in each transaction. The cities have thus anticipated and agreed to these costs.

No comments on the proposed rule amendments were received from the affected communities.

PROGRAM CONSIDERATIONS:

The Master Agreements between DEQ and the Cities of Gresham and Portland set up a unique structure for financing the sewerage of mid-Multnomah County. As unusual structures tend to do, this one strains the various systems that were previously put in place for more specific and ordinary uses of pollution control funds. The proposed administrative rule amendments increase the Department's flexibility in dealing with this unique financing structure without exhausting existing resources.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adopt rule amendments to enable the Department to prudently and efficiently recover its costs.
2. Use cost recovery provisions of existing permanent rules, which will not be sufficient to cover actual costs and which may not fit into proposed financing structure.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission:

1. Adopt the findings for adoption of rule amendments as presented in Attachment B.
2. Adopt rule amendments (Alternative 1), as presented in Attachment A.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

These rule amendments are consistent with prior Commission actions concerning the protection of drinking water in the mid-Multnomah County area and with goal 9 of the strategic plan.

This request is consistent with agency policy and state statutes for issuing Pollution Control Bonds. The Attorney General's office, bond counsel, the State Treasurer's office, and city attorneys have all reviewed the proposed amendments.

ISSUES FOR COMMISSION TO RESOLVE:

Whether the proposed rule amendments adequately address the issue of cost recovery.

Meeting Date: December 14, 1990
Agenda Item: I
Page 5

INTENDED FOLLOWUP ACTIONS:

Upon EQC adoption, file the rule amendments with the Secretary of State and Legislative Counsel, and provide post-adoption notice of the rule amendments to currently affected parties.

Approved:

Section:

Division:

Director:

Noam R. Stampfer
John A. Salter
Bill Hansen

Report Prepared By: Noam R. Stampfer

Phone: 229-5355

Date Prepared: November 14, 1990

NRS:nrs
November 10, 1990

OREGON ADMINISTRATIVE RULES
340-81-020, -026, -031,
-036, and -046

NOTE:

The underlined portions of text represent proposed additions made to the rules.

The ~~{bracketed}~~ portions of text represent proposed deletions made to the rules.

ELIGIBLE COSTS

340-81-020

Costs for planning, design, implementation, ~~{and}~~ construction, ~~{including}~~ essential land acquisition, financing and loan issuance costs, and related fiscal and legal costs may be included as eligible costs for projects receiving financial assistance unless otherwise provided by law. Costs shall be limited to those reasonable and necessary to complete an operable facility that will serve the projected population during the design life of the facility, consistent with the applicable Land Use Plan.

NATURE AND LIMITATIONS OF FINANCIAL ASSISTANCE

340-81-026

- (1) Unless otherwise approved by the Legislature, Legislative Ways and Means Committee or Legislative Emergency Board, financial assistance shall be limited to loans.
- (2) Loans secured by means other than sale of General Obligation Bonds by the public agency shall be subject to approval by the Environmental Quality Commission.
- (3) Loans shall not exceed 100 percent of the eligible project cost. In the event the project receives grant or loan assistance from any other sources, the total of such assistance and any loan provided from the Pollution Control Fund shall not exceed 100 percent of the eligible costs.
- (4) The loan interest rate paid by the public agency shall be equal to the interest rate on the state bonds from which the loan is made, except as provided in sections (5) and (6) of this rule.
- (5) ~~{The Department shall add to the rate of interest otherwise to be charged on loans a surcharge not to exceed an annual rate of one-tenth of one percent to be applied to the outstanding principal balances in order to offset the Department's expenses of administering the loan and the Pollution Control Fund.}~~ The Department shall charge fees, purchase loans at a discount, or add to the rate of interest otherwise to be charged on loans a surcharge, in an amount reasonably calculated to permit the Department to recover its costs in issuing General Obligation Bonds to fund the loans, and its costs in acquiring the loans and administering the loans and the Pollution Control Fund.
- ~~{(6) The Department may assess a special loan processing fee of up to \$10,000 to recover extraordinary costs for legal and financial specialists that may be needed to enable the Department to satisfy itself that the loan is legally and financially sound.}~~
- ~~{(7)}~~ (6) The public agency must retire its debt obligation to the state at least as rapidly as the state bonds from which the loan funds are derived are to be retired; except that special debt service

requirements on the public agency's loan may be established by the Department when:

- (a) A debt requirement schedule longer than the state's bond repayment schedule is legally required; or
- (b) Other special circumstances are present.

~~f(8)~~(7) Interest and principal payments shall be due at least thirty days prior to the interest and principal payment dates established for the state bonds from which the loan is advanced.

~~f(9)~~(8) Any excess loan funds held by the public agency following completion of the project for which funds are advanced shall be used for prepayment of loan principal and interest.

PRELIMINARY REQUEST FOR FINANCIAL ASSISTANCE

340-81-031

- (1) Public agencies desiring to receive financial assistance from the Department shall file a preliminary application ~~{on-forms-supplied-by-the Department}~~. This application will set forth:
 - (a) A description of the project for which funding assistance is desired;
 - (b) A description of the pollution control problem that the project will assist in resolving;
 - (c) The estimated cost of the project;
 - (d) The schedule for the project including the schedule for a bond election if one is necessary;
 - (e) The funding sources for the project;
 - (f) The method for securing the loan being requested from the Department;
 - (g) Such other information as the Department deems necessary.
- (2) Preliminary applications may be filed with the Department at any time.
- (3) The Department may give notice of intent to receive preliminary applications by a date certain in order to prepare a priority list if such lists become necessary to allocate anticipated available funds.
- (4) This section shall not apply to financial assistance which the Department provides pursuant to a long-term, written agreement with a public agency.

PRIORITIZATION OF PRELIMINARY APPLICATIONS

340-81-036

- (1) If it appears that the potential requests for financial assistance may exceed the funds available, the Department shall notify potential applicants of the deadline for submitting preliminary applications to receive consideration in the prioritization process. Such prioritization will generally occur no more frequently than once per year. To the extent possible, the prioritization process will be completed in February in order to mesh with local budget processes and facilitate project initiation during favorable construction weather.
- (2) The process for prioritization shall be as follows:
 - (a) Each project shall be assigned points based on the schedule contained in OAR 340-81-~~f1~~041.
 - (b) Projects shall be ranked by point total from highest to lowest with the project receiving the highest points being the highest priority for funding assistance. A fundable list shall then be established based on available funds.
 - (c) The Department shall notify each public agency within the fundable range on the list and forward a draft loan agreement for review, completion, and execution.
 - (d) If the loan agreement is not completed, executed, and returned to the Department within 60 days of notification, the public agency's priority position for funding assistance during that year shall be forfeited, and the funds made available in order of priority to projects below the fundable line on the list. The 60-day time limit may be extended by the Department upon request of the applicant with a demonstration of need to complete required legal and administrative processes.
- (3) If funds remain after all qualifying applications on the list are funded, the Department may fund new requests from qualifying applicants on a first-come, first-serve basis.

(4) This section shall not apply to financial assistance which the Department provides pursuant to a long-term, written agreement with a public agency.

EXECUTION OF LOAN AGREEMENT

340-81-046

- (1) The loan agreement shall at a minimum specify:
 - (a) The specific purpose for which funds are advanced;
 - (b) The security to be provided;
 - (c) The schedule for payment of interest and principal;
 - (d) The source of funds to be pledged for repayment of the loan;
 - (e) The additional approvals that must be obtained from the Department prior to advance of funds or start of construction.

~~(2) The loan agreement shall have as attachments the following:~~

- ~~(a) A list of general assurances and covenants as approved by the Attorney General;~~
- ~~(b) An official resolution or record of the public agency's governing body authorizing the loan agreement and authorizing an official of the public agency to execute all documents relating to the loan;~~
- ~~(c) A legal opinion of the public agency's attorney establishing the legal authority of the public agency to incur the indebtedness and enter into the loan agreement;~~
- ~~(d) Copies of ordinances pertinent to the construction, operation, and loan repayment for the project and the public agency's total sewerage facility including relevant user charges, connection charges, and system development charges;~~
- ~~(e) A 5-year projection of revenues and expenditures related to the construction, operation and debt service for the project and the public agency's total sewerage facility which assures that the project is self-supporting and self-liquidating.~~

STATE OF OREGON
ENVIRONMENTAL QUALITY COMMISSION

811 S.W. 6th Avenue
Portland, Oregon 97204

RULEMAKING STATEMENTS
FOR PERMANENT RULES
AMENDING POLLUTION CONTROL BOND PROGRAM RULES

Statutory Authority

ORS 468.195 through 468.220 authorizes rule adoption for the purpose of administering the Pollution Control Fund, OAR Chapter 340, Division 81.

Need for the Rules

The proposed rules are necessary in order to establish an administrative process that would be compatible with long term financing agreements that involve a series of bond issues. The proposed rules are also necessary to correctly set appropriate levels of cost recovery.

The Department of Environmental Quality (the Department or DEQ) and the Cities of Gresham and Portland have entered into an Intergovernmental Agreement that defines a structure for the financing of sewerage work in mid-Multnomah County. The agreement calls for the Department to simultaneously issue State of Oregon Pollution Control Bonds and use the proceeds of that issue to purchase Special Assessment Improvement Bonds issued by the Cities of Gresham and Portland.

Principal Documents relied Upon

- a. Oregon Revised Statutes 468.195 - 220.
- b. Oregon Administrative Rules, Chapter 340, Division 81.
- c. Letter from bond counsel dated July 10, 1990.
- d. Letter from Assistant Attorney General dated July 9, 1990.
- e. Letter from bond counsel dated July 6, 1990.

Fiscal and Economic Impact

a. General Public:

The impact on the general public is limited to those residents of the mid-Multnomah County area whose sewer assessments will be financed with the proceeds of Pollution Control Bonds. The primary effect of the proposed rule changes is that the Department will be able to provide low-cost financing, through the cities, to the affected residents. Those residents will enjoy interest rates significantly below that which they would be able to obtain from conventional, commercial lenders. Without the rule changes, the financing could not be done and the interest rate savings would not be available.

The secondary effect is that the additional cost recovery allowed by the rule amendments will add the cost of issuing the bonds to the total amount financed. Those who directly benefit from the financing program would pay for its transaction costs. The issuance costs absorbed by the public would be small compared to the interest rate savings provided by this financing arrangement.

b. Small Business:

There are no direct impacts on small businesses. The sewerage project in mid-Multnomah County is driven by the threat to drinking water in the area. The financing mechanism makes the project financially feasible to area residents. The only small businesses that will be affected will be those that are involved in the sewerage process.

c. Large Business

There are no direct impacts on large businesses. The sewerage project in mid-Multnomah County is driven by the threat to drinking water in the area. The financing mechanism makes the project financially feasible to area residents. The only large businesses that will be affected will be those that are involved in the sewerage process.

d. Local Governments

The immediately affected local governments are the Cities of Gresham and Portland. The rule changes will

enable the Department to provide the cities with a low-cost financing mechanism for sewerage unincorporated areas that would not impact the cities' credit rating. Other local governments could, in the future, similarly benefit from the increased flexibility that the rule changes will provide.

e. State Agencies

If the rules remained unchanged, the Department would be adversely impacted in two ways. First, the Department would be forced to absorb certain costs of issuing bonds, which could make the mechanism of Pollution Control Fund financing unavailable to local governments for complex transactions. Second, the Department would not be able to efficiently enter into long term financing agreements by adopting umbrella agreements that would govern a series of transactions.

Adoption of the proposed rule changes would eliminate adverse impacts to the Department. There would be no beneficial economic impacts to the Department because the cost recovery would only include actual, identifiable costs that would not otherwise be incurred.

No other state agencies would be impacted.

NOTICE OF PUBLIC HEARING

Pollution Control Bond Fund Rule Amendments

Hearing Date: October 22, 1990
Comments Due: October 26, 1990

Who Is Affected: Municipal governments that may want the Department of Environmental Quality to purchase their bonds with proceeds of State General Obligation Pollution Control Bonds.

What Is Proposed: The Department of Environmental Quality is proposing to amend OAR 340, Division 81.

What Are The Highlights: The amendments would allow the Department to recover its actual cost of bond issuance and would therefore enable the Department to enter into long term financing agreements with local governments.

How To Comment: Copies of the complete proposed rule package may be obtained from:

Finance Section
Management Services Division
Department of Environmental Quality
811 S.W. Sixth
Portland, Oregon 97204

For further information, call Noam Stampfer at (503) 229-5355.

A public hearing will be held at:

10:00 a.m.
October 22, 1990
Conference Room 7B
811 S.W. Sixth
Portland, Oregon 97204

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ, but must be received no later than October 26, 1990.

POLLUTION CONTROL

168.215

468.185 Procedure to revoke certification; reinstatement. (1) Pursuant to the procedures for a contested case under ORS 183.310 to 183.550, the commission may order the revocation of the certification issued under ORS 468.170 of any pollution control or solid waste, hazardous wastes or used oil facility, 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 used oil as specified in such certificate.

(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 wastes or used oil facility is ordered revoked pursuant to paragraph (a) of subsection (1) of this section, 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 section, if the certification of a pollution control or solid waste, hazardous wastes or used oil facility is ordered revoked pursuant to paragraph (b) of subsection (1) of this section, 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) The commission may reinstate a tax credit certification revoked under paragraph (b) of subsection (1) of this section if the commission finds the facility has been brought into compliance. If the commission reinstates certification under this subsection, 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 as determined by the commission. [Formerly 449.645; 1975 c.406 §7; 1977 c.795 §7, 1979 c.302 §7; 1987 c.598 §6]

468.187 [1981 c.710 §2; repealed by 1984 s.s. c.1 §18]

468.190 Allocation of costs to pollution control. (1) 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:

(a) If applicable, 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) If applicable, the alternative methods, equipment and costs for achieving the same pollution control objective.

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

(e) 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.

(2) 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.

(3) The commission may adopt rules establishing methods to be used to determine 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. [Formerly 449.655; 1974 s.s. c.37 §4; 1977 c.795 §8; 1983 c.637 §4]

STATE POLLUTION CONTROL BONDS

468.195 Issuance of bonds authorized; principal amount. In order to provide funds for the purposes specified in Article XI-H of the Oregon Constitution bonds may be issued in accordance with the provisions of ORS 286.031 to 286.061. The principal amount of the bonds outstanding at any one time, issued under authority of this section, shall not exceed \$260 million par value. [Formerly 449.672; 1981 c.312 §1; 1981 c.660 §42]

468.200 [Formerly 449.675; repealed by 1981 c.660 §18]

468.205 [Formerly 449.677; repealed by 1981 c.660 §18]

468.210 [Formerly 449.680, 1975 c.462 §14; repealed by 1981 c.660 §15]

468.215 Pollution Control Fund. The money realized from the sale of each issue of bonds shall be credited to a special fund in the State Treasury, separate and distinct

from the General Fund, to be designated the Pollution Control Fund; which fund is hereby appropriated for the purpose of carrying out the provisions of ORS 468.195 to 468.260. It shall not be used for any other purpose, except that this money, with the approval of the State Treasurer, may be invested as provided by ORS 293.701 to 293.776, 293.810 and 293.820, and the earnings from such investments inure to the Pollution Control Sinking Fund. [Formerly 449.682]

468.220 Department to administer fund; uses; legislative approval of grants; administrative assessment. (1) The department shall be the agency for the State of Oregon for the administration of the Pollution Control Fund. The department is hereby authorized to use the Pollution Control Fund for one or more of the following purposes:

(a) To grant funds not to exceed 30 percent of total project costs for eligible projects as defined in ORS 454.505 or sewerage systems as defined in ORS 468.700.

(b) To acquire, by purchase, or otherwise, general obligation bonds or other obligations of any municipal corporation, city, county, or agency of the State of Oregon, or combinations thereof, issued or made for the purpose of paragraph (a) of this subsection in an amount not to exceed 100 percent of the total project costs for eligible projects.

(c) To acquire, by purchase, or otherwise, other obligations of any city that are authorized by its charter in an amount not to exceed 100 percent of the total project costs for eligible projects.

(d) To grant funds not to exceed 30 percent of the total project costs for facilities for the disposal of solid waste, including without being limited to, transfer and resource recovery facilities.

(e) To make loans or grants to any municipal corporation, city, county, or agency of the State of Oregon, or combinations thereof, for planning of eligible projects as defined in ORS 454.505, sewerage systems as defined by ORS 468.700 or facilities for the disposal of solid waste, including without being limited to, transfer and resource recovery facilities. Grants made under this paragraph shall be considered a part of any grant authorized by paragraph (a) or (d) of this subsection if the project is approved.

(f) To acquire, by purchase, or otherwise, general obligation bonds or other obligations of any municipal corporation, city, county, or agency of the State of Oregon, or combinations thereof, issued or made for the purpose of paragraph (d) of this subsection in an amount not to exceed 100 percent of the total project costs.

(g) To advance funds by contract, loan or otherwise, to any municipal corporation, city, county or agency of the State of Oregon, or combination thereof, for the purpose of paragraphs (a) and (d) of this subsection in an amount not to exceed 100 percent of the total project costs.

(h) To pay compensation required by law to be paid by the state for the acquisition of real property for the disposal by storage of environmentally hazardous wastes.

(i) To dispose of environmentally hazardous wastes by the Department of Environmental Quality whenever the department finds that an emergency exists requiring such disposal.

(j) To acquire for the state real property and facilities for the disposal by landfill, storage or otherwise of solid waste, including but not limited to, transfer and resource recovery facilities.

(k) To acquire for the state real property and facilities for the disposal by incineration or otherwise of hazardous waste or PCB.

(l) To provide funding for the Assessment Deferral Loan Program Revolving Fund established in ORS 454.436.

(m) To provide funding for the Orphan Site Account established in ORS 466.590 but only to the extent that the department reasonably estimates that debt service from bonds issued to finance such facilities or activities shall be fully paid from fees collected pursuant to ORS 453.402 (2)(c), under ORS 459.236 and under ORS 465.101 to 465.131 for the purpose of providing funds for the Orphan Site Account and other available funds, but not from repayments of financial assistance under ORS 465.265 to 465.310 or from moneys recovered from responsible parties.

(n) To advance funds by contract, loan or otherwise, to any municipal corporation, city, county or agency of this state, or combination thereof, for facilities or activities related to removal or remedial action of hazardous substances.

(2) The facilities referred to in paragraphs (a) to (c) of subsection (1) of this section shall be only such as conservatively appear to the department to be not less than 70 percent self-supporting and self-liquidating from revenues, gifts, grants from the Federal Government, user charges, assessments and other fees.

(3) The facilities referred to in paragraphs (d), (f) and (g) of subsection (1) of this section shall be only such as conservatively appear to the department to be not less than 70 percent self-supporting and self-liquidating from revenues, gifts, grants from the Federal

Government, user charges, assessments and other fees.

(4) The real property and facilities referred to in paragraphs (j) and (k) of subsection (1) of this section shall be only such as conservatively appear to the department to be not less than 70 percent self-supporting and self-liquidating from revenues, gifts, grants from the Federal Government, user charges, assessments and other fees.

(5) The department may sell or pledge any bonds, notes or other obligations acquired under paragraph (b) of subsection (1) of this section.

(6) Before making a loan or grant to or acquiring general obligation bonds or other obligations of a municipal corporation, city, county or agency for facilities for the disposal of solid waste or planning for such facilities, the department shall require the applicant to demonstrate that it has adopted a solid waste management plan that has been approved by the department. The plan must include a waste reduction program.

(7) Any grant authorized by this section shall be made only with the prior approval of the Joint Committee on Ways and Means during the legislative sessions or the Emergency Board during the interim period between sessions.

(8) The department may assess those entities to whom grants and loans are made under this section to recover expenses incurred in administering this section. [Formerly 449.045; 1977 c.95 §8; 1977 c.704 §9; 1979 c.773 §9; 1981 c.312 §2; 1985 c.670 §42; 1987 c.695 §10; 1989 c.833 §114]

Note: Section 170, chapter 833, Oregon Laws 1989, provides:

Sec. 170. If the Supreme Court declares that sections 139 to 148 of this Act impose a tax or excise levied on, with respect to or measured by the extractions, production, storage, use, sale, distribution or receipt of oil or natural gas or levied on the ownership of oil or natural gas, that is subject to the provisions of section 2, Article VIII or section 3a, Article IX of the Oregon Constitution, ORS 468.220, as amended by section 114 of this Act, is further amended to read:

468.220. (1) The department shall be the agency for the State of Oregon for the administration of the Pollution Control Fund. The department is hereby authorized to use the Pollution Control Fund for one or more of the following purposes:

(a) To grant funds not to exceed 30 percent of total project costs for eligible projects as defined in ORS 454.505 or sewerage systems as defined in ORS 468.700.

(b) To acquire, by purchase, or otherwise, general obligation bonds or other obligations of any municipal corporation, city, county, or agency of the State of Oregon, or combinations thereof, issued or made for the purpose of paragraph (a) of this subsection in an amount not to exceed 100 percent of the total project costs for eligible projects.

(c) To acquire, by purchase, or otherwise, other obligations of any city that are authorized by its charter in an amount not to exceed 100 percent of the total project costs for eligible projects.

(d) To grant funds not to exceed 30 percent of the total project costs for facilities for the disposal of solid waste, including without being limited to, transfer and resource recovery facilities.

(e) To make loans or grants to any municipal corporation, city, county, or agency of the State of Oregon, or combinations thereof, for planning of eligible projects as defined in ORS 454.505, sewerage systems as defined by ORS 468.700 or facilities for the disposal of solid waste, including without being limited to, transfer and resource recovery facilities. Grants made under this paragraph shall be considered a part of any grant authorized by paragraph (a) or (d) of this subsection if the project is approved.

(f) To acquire, by purchase, or otherwise, general obligation bonds or other obligations of any municipal corporation, city, county, or agency of the State of Oregon, or combinations thereof, issued or made for the purpose of paragraph (d) of this subsection in an amount not to exceed 100 percent of the total project costs.

(g) To advance funds by contract, loan or otherwise, to any municipal corporation, city, county or agency of the State of Oregon, or combination thereof, for the purpose of paragraphs (a) and (d) of this subsection in an amount not to exceed 100 percent of the total project costs.

(h) To pay compensation required by law to be paid by the state for the acquisition of real property for the disposal by storage of environmentally hazardous wastes.

(i) To dispose of environmentally hazardous wastes by the Department of Environmental Quality whenever the department finds that an emergency exists requiring such disposal.

(j) To acquire for the state real property and facilities for the disposal by landfill, storage or otherwise of solid waste, including but not limited to, transfer and resource recovery facilities.

(k) To acquire for the state real property and facilities for the disposal by incineration or otherwise of hazardous waste or PCB.

(L) To provide funding for the Assessment Deferral Loan Program Revolving Fund established in ORS 468.975.

(m) To provide funding for the Orphan Site Account established in ORS 468.590 but only to the extent that the department reasonably estimates that debt service from bonds issued to finance such facilities or activities shall be fully paid from fees collected pursuant to ORS 453.402 (2)(c), under ORS 459.236, under sections 162 to 168, chapter 933, Oregon Laws 1989, for the purpose of providing funds for the Orphan Site Account and other available funds, but not from repayments of financial assistance under ORS 465.265 to 465.310 or from moneys recovered from responsible parties.

(n) To advance funds by contract, loan or otherwise, to any municipal corporation, city, county or agency of this state, or combination thereof, for facilities or activities related to removal or remedial action of hazardous substances.

(2) The facilities referred to in paragraphs (a) to (c) of subsection (1) of this section shall be only such as conservatively appear to the department to be not less than 70 percent self-supporting and self-liquidating from revenues, gifts, grants from the Federal Government, user charges, assessments and other fees.

(3) The facilities referred to in paragraphs (d), (f) and (g) of subsection (1) of this section shall be only such as conservatively appear to the department to be not less than 70 percent self-supporting and self-liquidating from revenues, gifts, grants from the Federal Government, user charges, assessments and other fees.

(4) The real property and facilities referred to in paragraphs (j) and (k) of subsection (1) of this section shall be only such as conservatively appear to the department to be not less than 70 percent self-supporting and self-liquidating from revenues, gifts, grants from the Federal Government, user charges, assessments and other fees.

(5) The department may sell or pledge any bonds, notes or other obligations acquired under paragraph (b) of subsection (1) of this section.

(6) Before making a loan or grant to or acquiring general obligation bonds or other obligations of a municipal corporation, city, county or agency for facilities for the disposal of solid waste or planning for such facilities, the department shall require the applicant to demonstrate that it has adopted a solid waste management plan that has been approved by the department. The plan must include a waste reduction program.

(7) Any grant authorized by this section shall be made only with the prior approval of the Joint Committee on Ways and Means during the legislative sessions or the Emergency Board during the interim period between sessions.

(8) The department may assess those entities to whom grants and loans are made under this section to recover expenses incurred in administering this section.

468.225 Investment yield on undistributed bond funds and revenues. All undistributed bond funds and revenues received as payment upon agency bonds or other obligations, if invested, shall be invested to produce an adjusted yield not exceeding the limitations imposed by section 103, subsection (d) of the Internal Revenue Code of 1954, and amendments thereto in effect on March 1, 1971. [Formerly 449.687]

468.230 Pollution Control Sinking Fund; use; limitation. (1) The commission shall maintain, with the State Treasurer, a Pollution Control Sinking Fund, separate and distinct from the General Fund. The Pollution Control Sinking Fund shall provide for the payment of the principal and interest upon bonds issued under authority of Article XI-H of the Constitution of Oregon and ORS 468.195 to 468.260 and administrative expenses incurred in issuing the bonds. Moneys of the sinking fund are hereby appropriated for such purpose. With the approval of the commission, the moneys in the Pollution Control Sinking Fund may be invested as provided by ORS 293.701 to 293.776, 293.810 and 293.820, and earnings from such investment shall be credited to the Pollution Control Sinking Fund.

(2) The Pollution Control Sinking Fund shall consist of all moneys received from ad valorem taxes levied pursuant to ORS 468.195 to 468.260 and assessments collected under ORS 468.220 (8), moneys transferred from the Orphan Site Account under ORS 466.590 (6), all moneys that the Legislative Assembly may provide in lieu of such taxes, all earnings on the Pollution Control Fund, Pollution Control Sinking Fund, and all other revenues derived from contracts,

bonds, notes or other obligations, acquired, by the commission by purchase, loan or otherwise, as provided by Article XI-H of the Constitution of Oregon and by ORS 468.195 to 468.260.

(3) The Pollution Control Sinking Fund shall not be used for any purpose other than that for which the fund was created. Should a balance remain therein after the purposes for which the fund was created have been fulfilled or after a reserve sufficient to meet all existing obligations and liabilities of the fund has been set aside, the surplus remaining may be transferred to the Pollution Control Fund at the direction of the commission. [Formerly 449.690; 1981 c.312 §3; 1989 c.833 §115]

468.235 Levy of taxes to meet bond obligation authorized. Each year the Department of Revenue shall determine the amount of revenues and other funds that are available and the amount of taxes, if any, that should be levied in addition thereto to meet the requirements of ORS 468.195 to 468.260 for the ensuing fiscal year. Such additional amount of tax is hereby levied and shall be apportioned, certified to, and collected by the several counties of the state in the manner required by law for the apportionment, certification and collection of other ad valorem property taxes for state purposes. This tax shall be collected by the several county treasurers and remitted in full to the State Treasurer in the manner and the times prescribed by law, and shall be credited by the State Treasurer to the Pollution Control Sinking Fund. [Formerly 449.692]

468.240 Remedy where default occurs on payment to state. If any municipal corporation, city or county defaults on payments due to the state under ORS 468.195 to 468.260, the state may withhold any amounts otherwise due to the corporation, city or county to apply to the indebtedness. [Formerly 449.694]

468.245 Acceptance of federal funds. The commission may accept assistance, grants and gifts, in the form of money, land, services or any other thing of value from the United States or any of its agencies, or from other persons subject to the terms and conditions thereof, regardless of any laws of this state in conflict with regulations of the Federal Government or restrictions and conditions of such other persons with respect thereto, for any of the purposes contemplated by Article XI-H of the Constitution of Oregon and by ORS 468.195 to 468.260. Unless enjoined by the terms and conditions of any such gift or grant, the commission may convert the same or any of them into money through sale or other disposal thereof. [Formerly 449.695]

468.250 Participation in matching fund programs with Federal Government. (1) The commission may participate on behalf of the State of Oregon in any grant program funded in part by an agency of the Federal Government if the implementation of the program requires matching funds of the state or its participation in administering the program. However, any grant advanced by the commission to an otherwise eligible applicant shall not exceed 30 percent of the total eligible costs of the project applied for, and further provided that the project shall not be less than 70 percent self-supporting and self-liquidating from those sources prescribed by Article XI-H of the Constitution of Oregon.

(2) Subject to conditions imposed on federally granted funds, a municipal corporation, city, county or agency of the State of Oregon, or combination thereof, who is eligible for federal funds for a project during its construction or becomes eligible for reimbursement for funds expended, if the project has been constructed and placed into operation, shall apply for and pay to the commission such funds so received, or otherwise made available to it, in such amounts as determined by the commission as just and necessary, from an agency of the Federal Government. These funds shall first be used to reimburse the State of Oregon for the portion of any grant that was advanced to the municipal corporation, city, county or agency of the State of Oregon, or combination thereof, for construction of the project that exceeded the federal requirements for state matching funds and any remainder thereof shall be used to apply upon the retirement of any principal and interest indebtedness due and owing to the State of Oregon arising out of funds loaned for the project prior to federal funds becoming available.

(3) The refusal of a municipal corporation, city, county or agency of the State of Oregon, or combinations thereof, to apply for federal funds in such amounts as determined by the commission as just and necessary for which it would otherwise be eligible, shall be sufficient grounds to terminate any further participation in construction of a facility by the commission.

(4) The municipal corporation, city, county or agency of the State of Oregon, or combinations thereof, shall consent to and request that funds made available to it by an agency of the Federal Government shall be paid directly to the commission if required to do so under subsection (2) of this section. [Formerly 449.697]

468.253 Authority of director to act to benefit fund.(1) Notwithstanding any other

provision of law, if the director finds that it will benefit the financial condition of the Pollution Control Sinking Fund, with the approval of the State Treasurer the director may:

(a) Sell bonds, notes, contracts or other obligations acquired by the commission by purchase, loan or otherwise from the proceeds of bonds issued under ORS 468.195 to 468.260, and pay costs associated with the sale from the proceeds of the sale.

(b) Pay to an obligor under such bonds, notes, contracts or other obligations such sums from the proceeds of a sale authorized by paragraph (a) of this subsection as the director determines, or hold or deposit such sums in trust for the benefit of such obligor under terms established by the director.

(2) Any proceeds of a sale authorized by subsection (1) of this section which remain after payments authorized by subsection (1) of this section shall be deposited in the Pollution Control Sinking Fund.

(3) An obligor under any bonds, notes, contracts or other obligations which are proposed to be sold by the director pursuant to subsection (1) of this section may waive its right to redeem such obligations prior to maturity, or otherwise renegotiate the terms of such obligations, if the obligor determines that so altering the terms of its obligation, together with payments to be received by the obligor under paragraph (b) of subsection (1) of this section, will benefit the obligor. [1979 c.731 §4]

468.255 Limit on grants and loans. Any funds advanced by the commission by grant shall not exceed 30 percent of the total project costs for eligible projects or for facilities related to disposal of solid wastes, and any obligation acquired by the commission by purchase, contract, loan, or otherwise, shall not exceed 100 percent of the total project costs for eligible projects or for facilities related to disposal of solid wastes. Combinations of funds granted and loaned by whatever means shall not total more than 100 percent of the eligible project costs. [Formerly 449.699; 1981 c.312 §4]

468.260 Return of unexpended funds to state required; use of returned funds. Any proceeds unexpended after a project is constructed and inspected, and after records relating thereto are audited by the commission, shall be returned to the commission on behalf of the State of Oregon to apply upon the retirement of principal and interest indebtedness on obligations acquired by it from a municipal corporation, city, county or agency of the State of Oregon, or any combinations thereof. [Formerly 449.701]

COUNTY POLLUTION CONTROL FACILITIES

468.263 Definitions for ORS 468.263 to 468.272. As used in ORS 468.263 to 468.272, unless the context requires otherwise:

(1) "Bonds" means revenue bonds or other types of obligations authorized by ORS 468.263 to 468.272.

(2) "Pollution control facilities" or "facilities" means any land, building or other improvement, appurtenance, fixture, item of machinery or equipment, and all other real and personal property, whether or not in existence or under construction at the time the bonds are issued, which are to be used in furtherance of the purpose of abating, controlling or preventing, altering, disposing or storing of solid waste, thermal, noise, atmospheric or water pollutants, contaminants, or products therefrom.

(3) "Governing body" means the county court or board of county commissioners. [1974 s.s. c.34 §2]

Note: 468.263 to 468.272 were enacted into law by the Legislative Assembly but were not added to or made a part of ORS chapter 468 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

468.264 Policy. The Legislative Assembly finds:

(1) That control of environmental damage and general health and welfare of the citizens of the State of Oregon is promoted by encouraging the installation of antipollution devices, equipment and facilities.

(2) That the methods of financing provided in ORS 468.263 to 468.272 will encourage such installation. [1974 s.s. c.34 §1]

Note: See note under 468.263.

468.265 Powers of county over pollution control facilities. (1) In addition to any other powers which it may now have, each county shall have the following powers, together with all powers incidental thereto or necessary for the performance of the following:

(a) To acquire, whether by purchase, exchange, devise, gift or otherwise, establish, construct, improve, maintain, equip and furnish one or more pollution control facilities or any interest therein to be located, in whole or in part, within such municipality.

(b) To enter into a lease, sublease, lease-purchase, instalment sale, sale, or agreement for any facility upon such terms and conditions as the governing body may deem advisable, provided the same shall at least fully cover all debt service requirements with respect to the facility and shall not conflict

with the provisions of ORS 468.263 to 468.272.

(c) To sell, exchange, donate and convey to others any or all facilities upon such terms as the governing body may deem advisable, including the power to receive for any such sale the note or notes of the purchaser of the facilities or property whenever the governing body finds any such action to be in furtherance of the purposes of ORS 468.263 to 468.272.

(d) To issue revenue bonds for the purpose of carrying out any of its powers under ORS 468.263 to 468.272.

(e) Whenever the governing body finds such loans to be in the furtherance of the purposes of ORS 468.263 to 468.272 and subject always to the limitations contained in ORS 468.266, to make secured or unsecured loans for the purpose of financing or refinancing the acquisition, construction, improvement or equipping of a facility and to charge and collect interest on such loans and pledge the proceeds thereof as security for the payment of the principal and interest of any bonds issued hereunder and any agreements made in connection therewith.

(f) To mortgage and pledge any or all facilities or any part or parts thereof, whether then owned or thereafter acquired, and to pledge the revenues, proceeds and receipts or any portion thereof from a facility as security for the payment of the principal of and interest on any bonds so issued.

(g) To refund outstanding obligations incurred by an enterprise to finance the cost of a facility when the governing body finds that such refinancing is in the public interest.

(h) To pay compensation for professional services and other services as the governing body shall deem necessary to carry out the purposes of ORS 468.263 to 468.272.

(i) To acquire and hold obligations of any kind to carry out the purposes of ORS 468.263 to 468.272.

(j) To invest and reinvest funds under its control as the governing body shall direct.

(k) To enter into contracts and execute any agreements or instruments and to do any and all things necessary or appropriate to carry out the purposes of ORS 468.263 to 468.272.

(2) The county shall not have the power to operate any facility as a business other than as lessor or seller, nor shall it permit any funds derived from the sale of bonds to be used by any lessee or purchaser of a facility as working capital. [1974 s.s. c.34 §3]

Note: See note under 468.263.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: October 29, 1990

TO: Environmental Quality Commission

FROM: Noam R. Stampfer, Hearing Officer

SUBJECT: Public Hearing: Proposed Adoption of Amendments to
Pollution Control Bond Fund Rules.

On October 22, 1990 a public hearing was held to receive comments on proposed amendments to the Pollution Control Bond Fund rules. No one attended the hearing and no one submitted written testimony.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: December 14, 1990
Agenda Item: J
Division: HSW
Section: Solid Waste

SUBJECT:

Reconsideration of Administrative Rule and further discussion of the Surcharge on out-of-state solid waste.

PURPOSE:

To reconsider the administrative rule adopted during the November 2, 1990 meeting of the Environmental Quality Commission, which established a surcharge on out-of-state waste of \$2.75 per ton.

The Commission will reconsider the amount of the surcharge in light of action taken by the State Emergency Board to approve a surcharge on out-of-state waste of \$2.25 per ton.

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
 - Proposed Rules Attachment A
 - Rulemaking Statements Attachment ___
 - Fiscal and Economic Impact Statement Attachment ___
 - Public Notice Attachment ___
- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order Attachment ___

Meeting Date: December 14, 1990
Agenda Item: J
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<input type="checkbox"/> Approve Department Recommendation	
<input type="checkbox"/> Variance Request	Attachment <input type="checkbox"/>
<input type="checkbox"/> Exception to Rule	Attachment <input type="checkbox"/>
<input type="checkbox"/> Informational Report	Attachment <input type="checkbox"/>
<input type="checkbox"/> Other: (specify)	Attachment <input type="checkbox"/>

DESCRIPTION OF REQUESTED ACTION:

The statute (ORS 459.297) states that the Environmental Quality Commission shall establish the surcharge on out-of-state waste by rule, subject to approval by the Emergency Board (or the Joint Committee on Ways and Means during legislative session).

The State Emergency Board, on November 16, considered the Department's analysis of the costs of accepting out-of-state solid waste, and the Commission's action to adopt a surcharge of \$2.75 per ton, based upon the analysis of the costs of accepting out-of-state waste. The Emergency Board voted to exclude the identified costs of "Lost tourism or business development revenues due to the stigma of accepting out-of-state waste", reducing the identified costs by \$.47 per ton, and approving a surcharge of \$2.25 per ton.

The Environmental Quality Commission, therefore, needs to reconsider its previously approved administrative rule and either adopt the surcharge level approved by the Emergency Board, or adopt a different surcharge level and send it back to the Emergency Board in January 1991 for approval. If the Commission adopts the level of \$2.25 per ton already approved by the Emergency Board, it will not have to go back to the Emergency Board for approval.

AUTHORITY/NEED FOR ACTION:

<input checked="" type="checkbox"/> Required by Statute: <u>ORS 459.298</u>	Attachment <u>B</u>
Enactment Date: _____	
<input type="checkbox"/> Statutory Authority: _____	Attachment <input type="checkbox"/>
<input type="checkbox"/> Pursuant to Rule: _____	Attachment <input type="checkbox"/>
<input type="checkbox"/> Pursuant to Federal Law/Rule: _____	Attachment <input type="checkbox"/>
<input type="checkbox"/> Other:	Attachment <input type="checkbox"/>
<input type="checkbox"/> Time Constraints: (explain)	

Meeting Date: December 14, 1990
Agenda Item: J
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DEVELOPMENTAL BACKGROUND:

<input type="checkbox"/> Advisory Committee Report/Recommendation	Attachment <input type="checkbox"/>
<input type="checkbox"/> Hearing Officer's Report/Recommendations	Attachment <input type="checkbox"/>
<input type="checkbox"/> Response to Testimony/Comments	Attachment <input type="checkbox"/>
<input type="checkbox"/> Prior EQC Agenda Items: (list)	Attachment <input type="checkbox"/>
<input type="checkbox"/> Other Related Reports/Rules/Statutes:	Attachment <input type="checkbox"/>
<input type="checkbox"/> Supplemental Background Information	Attachment <input type="checkbox"/>

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

If approved at the \$2.25 per ton level, the surcharge will be \$.50 per ton lower than the level previously adopted by the Commission.

A "Chance to Comment" on the surcharge approved by the Emergency Board has been issued, and comments will be received until December 13, 1990.

PROGRAM CONSIDERATIONS:

None.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adopt the surcharge approved by the Emergency Board.
2. Adopt a surcharge level different than that approved by the Emergency Board, and send it back to the Emergency Board for approval.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends adopting the \$2.25 per ton surcharge level approved by the Emergency Board.

The Emergency Board deliberated on the Department's cost analysis and the proposed surcharge at some length and gave each cost category careful consideration. After this thorough consideration, the Emergency Board decided that the potential costs of lost tourism and business revenues should be excluded from the costs used to determine the surcharge amount. It is unlikely that the legislature, which has final authority on establishment of the surcharge level under state law, would reach a different conclusion if given another opportunity to consider the matter.

Meeting Date: December 14, 1990
Agenda Item: J
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CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The Department's recommended action would be consistent with legislative policy to delete costs of lost tourism and business development revenues.

ISSUES FOR COMMISSION TO RESOLVE:

Should the Commission adopt the surcharge as approved by the Emergency Board?

INTENDED FOLLOWUP ACTIONS:

The Department will notify all disposal sites of the new surcharge, which will go into effect January 1, 1991.

Approved:

Section:

John Greenwood

Division:

Stephanie Hallock

Director:

Bill Harris

Report Prepared By: Steve Greenwood

Phone: 229-5782

Date Prepared: November 27, 1990

SPG:kls
SW\SK3146
11/27/90

Proposed Amendments to OAR 340-61

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
ADMINISTRATIVE RULES
DIVISION 61 - SOLID WASTE MANAGEMENT
7/23/90

Proposed additions to rule are underlined.
Proposed deletions are in brackets [].

Permit Fees

340-61-115 (1) Beginning July 1, 1984, each person required to have a Solid Waste Disposal Permit shall be subject to a three-part fee consisting of a filing fee, an application processing fee and an annual compliance determination fee as listed in OAR 340-61-120. In addition, each disposal site receiving domestic solid waste shall be subject to an annual recycling program implementation fee as listed in Table 1, and a per-ton fee on domestic solid waste as specified in Section 5 of this rule. In addition, each disposal site or regional disposal site receiving solid waste generated out-of-state shall pay a surcharge as specified in Section 6 of this rule. The amount equal to the filing fee, application processing fee, the first year's annual compliance determination fee and, if applicable, the first year's recycling program implementation fee shall be submitted as a required part of any application for a new permit. The amount equal to the filing fee and application processing fee shall be submitted as a required part of any application for renewal or modification of an existing permit.

(2) As used in this rule unless otherwise specified, the term "domestic solid waste" includes, but is not limited to, residential, commercial and institutional wastes; but the term does not include:

- (a) Sewage sludge or septic tank and cesspool pumpings;
- (b) Building demolition or construction wastes and land clearing debris, if delivered to disposal sites that are not open to the general public;
- (c) Yard debris, if delivered to disposal sites that receive no other residential wastes.

(3) The annual compliance determination fee and, if applicable, the annual recycling program implementation fee must be paid for each year a disposal site is in operation. The fee period shall be the state's fiscal year (July 1 through June 30) and shall be paid annually by July 1. Any annual compliance determination fee and, if applicable, any recycling program implementation fee submitted as part of an application for a new permit shall apply to the fiscal year the permitted disposal site is put into operation. For the first year's operation, the full fee(s) shall apply if the disposal site is placed into operation

on or before April 1. Any new disposal site placed into operation after April 1 shall not owe a compliance determination fee and, if applicable, a recycling program implementation fee until July 1. The Director may alter the due date for the annual compliance determination fee and, if applicable, the recycling program implementation fee upon receipt of a justifiable request from a permittee.

(4) For the purpose of determining appropriate fees, each disposal site shall be assigned to a category in Table 1 based upon the amount of solid waste received and upon the complexity of each disposal site. Each disposal site which falls into more than one category shall pay whichever fee is the basis of estimated annual tonnage or gallonage of solid waste received unless the actual amount received is known. Estimated annual tonnage for domestic waste disposal sites will be based upon 300 pounds per cubic yard of uncompacted waste received, 700 pounds per cubic yard of compacted waste received, or, if yardage is not known, one ton per resident in the service area of the disposal site, unless the permittee demonstrates a more accurate estimate. Loads of solid waste consisting exclusively of soil, rock, concrete, rubble or asphalt shall not be included when calculating the annual amount of solid waste received.

(5) Modifications of existing, unexpired permits which are instituted by the Department due to changing conditions or standards, receipt of 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.

(6) Upon the Department accepting an application for filing, the filing fee shall be non-refundable.

(7) The application processing fee may be refunded in whole or in part when submitted with an application if either of the following conditions exist:

(a) The Department determines that no permit will be required;

(b) The applicant withdraws the application before the Department has granted or denied preliminary approval or, if no preliminary approval has been granted or denied, the Department has approved or denied the application.

(8) All fees shall be made payable to the Department of Environmental Quality.

Permit Fee Schedule

340-61-120 (1) Filing Fee. A filing fee of \$50 shall accompany each application for issuance, renewal, modification, or transfer of a Solid Waste Disposal Permit. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed.

(2) Application Processing Fee. An application processing fee varying between \$100 and \$2,000 shall be submitted with each

application. The amount of the fee shall depend on the type of facility and the required action as follows:

- (a) A new facility (including substantial expansion of an existing facility):
- (A) Major facility¹ \$ 2,000
 - (B) Intermediate facility² \$ 1,000
 - (C) Minor facility³ \$ 300

¹Major Facility Qualifying Factors:

- a- Received more than 25,000 tons of solid waste per year; or
- b- Has a collection/treatment system which,, if not properly constructed, operated and maintained, could have a significant adverse impact on the environment as determined by the Department.

²Intermediate Facility Qualifying Factors:

- a- Received at least 5,000 but not more than 25,000 tons of solid waste per year; or
- b- Received less than 5,000 tons of solid waste and more than 25,000 gallons of sludge per month.

³Minor Facility Qualifying Factors:

- a- Received less than 5,000 tons of solid waste per year; and
- b- Received less than 25,000 gallons of sludge per month.

All tonnages based on amount received in the immediately preceding fiscal year, or in a new facility the amount to be received the first fiscal year of operation.

(b) Preliminary feasibility only (Note: the amount of this fee may be deducted from the complete application fee listed above):

- (A) Major facility \$ 1,200
 - (B) Intermediate facility \$ 600
 - (C) Minor facility \$ 200
- (c) Permit renewal (including new operational plan, closure plan or improvements):
- (A) Major facility \$ 500
 - (B) Intermediate facility \$ 250
 - (C) Minor facility \$ 125
- (d) Permit renewal (without significant change):
- (A) Major facility \$ 250
 - (B) Intermediate facility \$ 150
 - (C) Minor facility \$ 100

- (e) Permit modification (including new operational plan, closure plan or improvements):
 - (A) Major facility \$ 500
 - (B) Intermediate facility \$ 250
 - (C) Minor facility \$ 100
 - (f) Permit modification (without significant change in facility design or operation): All categories \$ 100
 - (g) Permit modification (Department initiated) All categories No fee
 - (h) Letter authorizations, new or renewal: \$ 100
- (3) Annual Compliance Determination Fee (In any case where a facility fits into more than one category, the permittee shall pay only the highest fee):
 - (a) Domestic Waste Facility:
 - (A) A landfill which received 500,000 tons or more of solid waste per year: \$60,000
 - (B) A landfill which received at least 400,000 but less than 500,000 tons of solid waste per year: \$48,000
 - (C) A landfill which received at least 300,000 but less than 400,000 tons of solid waste per year: \$36,000
 - (D) A landfill which received at least 200,000 but less than 300,000 tons of solid waste per year: \$24,000
 - (E) A landfill which received at least 100,000 but less than 200,000 tons of solid waste per year: \$12,000
 - (F) A landfill which received at least 50,000 but less than 100,000 tons of solid waste per year: \$ 6,000
 - (G) A landfill which received at least 25,000 but less than 50,000 tons of solid waste per year: \$ 3,000
 - (H) A landfill which received at least 10,000 but less than 25,000 tons of solid waste per year: \$ 1,500
 - (I) A landfill which received at least 5,000 but not more than 10,000 tons of solid waste per year: \$ 750
 - (J) A landfill which received at least 1,000 but not more than 5,000 tons of solid waste per year: \$ 200
 - (K) A landfill which received less than 1,000 tons of solid waste per year: \$ 100
 - (L) A transfer station which received more than 10,000 tons of solid waste per year: \$ 500
 - (M) A transfer station which received less than 10,000 tons of solid waste per year: \$ 50
 - (N) An incinerator, resource recovery facility, composting facility and each other facility not specifically classified above which receives more than 100,000 tons of solid waste per year: \$ 8,000
 - (O) An incinerator, resource recovery facility, composting facility and each other facility not specifically classified above which receives at least 50,000 tons but less than 100,000 tons of solid waste per year: \$ 4,000
 - (P) An incinerator, resource recovery facility, composting facility and each other facility not specifically classified above which receives less than 50,000 tons of solid waste per year: \$ 2,000
 - (b) Industrial Waste Facility:

- (A) A facility which received 10,000 tons or more of solid waste per year: \$ 1,500
- (B) A facility which received at least 5,000 tons but less than 10,000 tons of solid waste per year: \$ 750
- (C) A facility which received less than 5,000 tons of solid waste per year: \$ 150

(c) Sludge Disposal Facility:

- (A) A facility which received 25,000 gallons or more of sludge per month: \$ 150
- (B) A facility which received less than 25,000 gallons of sludge per month: \$ 100

(d) Closed Disposal Site: Each landfill which closes after July 1, 1984: 10% of fee which would be required, in accordance with subsections (3)(a), (3)(b), and (3)(c) above, if the facility was still in operation or \$50 whichever is greater.

(e) Facility with Monitoring Wells: In addition to the fees described above, each facility with one or more wells for monitoring groundwater or methane, surface water sampling points, or any other structures or locations requiring the collection and analysis of samples by the Department, shall be assessed a fee. The amount of the fee shall depend on the number of wells (each well in a multiple completion well is considered to be a separate well) or sampling points as follows: \$ 250 for each well or sampling point.

(4) Annual Recycling Program Implementation Fee. An annual recycling program implementation fee shall be submitted by each domestic waste disposal site, except transfer stations and closed landfills. This fee is in addition to any other permit fee which may be assessed by the Department. The amount of the fee shall depend on the amount of solid waste received as follows:

- (a) A disposal site which received 500,000 tons or more of solid waste per year \$20,000
- (b) A disposal site which received at least 400,000 but less than 500,000 tons of solid waste per year: \$18,000
- (c) A disposal site which received at least 300,000 but less than 400,000 tons of solid waste per year: \$14,000
- (d) A disposal site which received at least 200,000 but less than 300,000 tons of solid waste per year: \$ 9,000
- (e) A disposal site which received at least 100,000 but less than 200,000 tons of solid waste per year: \$ 4,600
- (f) A disposal site which received at least 50,000 but less than 100,000 tons of solid waste per year: \$ 2,300
- (g) A disposal site which received at least 25,000 but less than 50,000 tons of solid waste per year: \$ 1,200
- (h) A disposal site which received at least 10,000 but less than 25,000 tons of solid waste per year: \$ 450
- (i) A disposal site which received at least 5,000 but less than 10,000 tons of solid waste per year: \$ 225
- (j) A disposal site which received at least 1,000 but less than 5,000 tons of solid waste per year: \$ 75
- (k) A disposal site which received less than 1,000 tons of solid waste per year: \$ 50

(e) Grants to local government units for recycling and solid waste planning activities.

(f) To pay administrative costs incurred by the department in accomplishing the purposes set forth in this section, the amount allocated under this subsection shall not exceed 10 percent of the fees generated under ORS 459.294. [1989 c.833 §153]

Note: See note under 459.292.

459.297 Surcharge on solid waste generated out-of-state. (1) Beginning on January 1, 1991, every person who disposes of solid waste generated out-of-state in a disposal site or regional disposal site shall pay a surcharge as established by the Environmental Quality Commission under ORS 459.298. The surcharge shall be in addition to any other fee charged for disposal of solid waste at the site.

(2) The surcharge collected under this section shall be deposited in the State Treasury to the credit of an account of the Department of Environmental Quality. Such moneys are continuously appropriated to the department to meet the costs of the department in administering the solid waste program under ORS 459.005 to 459.426. [1989 c.833 §153]

Note: 459.297 and 459.298 were added to and made a part of ORS 459.005 to 459.426 by legislative action but were not added to any smaller series therein. See Preface to Oregon Revised Statutes for further explanation.

459.298 Amount of surcharge on solid waste generated out-of-state. Subject to approval by the Joint Committee on Ways and Means during the legislative sessions or the Emergency Board during the interim between sessions, the Environmental Quality Commission shall establish by rule the amount of the surcharge to be collected under ORS 459.297. The amount of the surcharge shall be based on the costs to the State of Oregon and its political subdivisions of disposing of solid waste generated out-of-state which are not otherwise paid for under the provisions of ORS 459.235 and 459.292 to 459.298, 459.411 to 459.417 and sections 70 to 73, chapter 833, Oregon Laws 1989. These costs may include but need not be limited to costs incurred for:

- (1) Solid waste management;
- (2) Issuing new and renewal permits for solid waste disposal sites;
- (3) Environmental monitoring;
- (4) Ground water monitoring; and
- (5) Site closure and post-closure activities. [1989 c.833 §156]

Note: See note under 459.297.

459.300 Metropolitan service district site selection. (1) The metropolitan service district may provide for the disposal of solid

waste from Clackamas, Multnomah or Washington County at a disposal site or sites other than the site selected by the Environmental Quality Commission under section 5, chapter 679, Oregon Laws 1985.

(2) The Department of Environmental Quality shall not use the selection of a disposal site under chapter 679, Oregon Laws 1985, to find that there is not a clearly demonstrated need for a site or sites selected by the metropolitan service district for disposal of waste under subsection (1) of this section. [1987 c.876 §5]

459.305 Certification that government unit has implemented opportunity to recycle; rules; fee; special provisions for metropolitan service district. (1) Except as otherwise provided by rules adopted by the Environmental Quality Commission under subsection (3) of this section, after July 1, 1988, a regional disposal site may not accept solid waste generated from any local or regional government unit within or outside the State of Oregon unless the Department of Environmental Quality certifies that the government unit has implemented an opportunity to recycle that meets the requirements of ORS 459.165 to 459.200 and 459.250.

(2) The Environmental Quality Commission shall adopt rules to establish a program for certification of recycling programs established by local or regional governments in order to comply with the requirement of subsection (1) of this section. No contract or agreement between an owner or operator of a disposal site and a local government unit shall affect the authority of the commission to establish or modify the requirements of an acceptable opportunity to recycle under ORS 459.165 to 459.200 and 459.250.

(3) Not later than July 1, 1988, the commission shall establish by rule the amount of solid waste that may be accepted from an out-of-state local or regional government before the local or regional government must comply with the requirement set forth in subsection (1) of this section. Such rule shall not become effective until July 1, 1990.

(4) Subject to review of the Executive Department and the prior approval of the appropriate legislative review agency, the department may establish a certification fee in accordance with ORS 468.065.

(5) After July 1, 1988, if the metropolitan service district sends solid waste generated within the boundary of the metropolitan service district to a regional disposal site, the metropolitan service district shall:

(a) At least semiannually operate or cause to be operated a collection system or site for receiving household hazardous waste;

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: December 13, 1990

TO: Environmental Quality Commission

FROM: Steve Greenwood

SUBJECT: Agenda Item J: Proposed Reconsideration of November 2, 1990 Actions to Adopt Rules to Implement Required Out of State Surcharge for Solid Waste. Additional Public Comment.

A Chance to Comment on the Commission's reconsideration of the rule for a surcharge on out-of-state solid waste was sent to all persons who had participated in the public comment process on this proposed rule. It was stated that comment would be taken only on the proposal to remove the costs for lost tourism from costs comprising the amount of the surcharge. The deadline for submittal of such comments to the Department was December 13, 1990.

Four persons submitted comments. Copies of these comments are attached.

Attachments

TO: Department of Environmental Quality
Solid Waste Permits & Compliance Section
Hazardous & Solid Waste Division

REF: Proposed Reconsideration of Rule Relating To a
Surcharge on Out-of-State Solid Waste Disposed
of in Oregon

Comment: I strongly agree with The Oregon Legislative Emergency
Board's decision that it was not appropriate to
include in the surcharge costs identified by
Oregon Department of Environmental Quality relating
to "lost Tourism or development revenues due
to stigma of accepting out-of-state waste."

Lawrence F. Lear

Lawrence F. Lear

PO Box 643

Condon, OR 97823

RECEIVED
DEC 04 1990
Hazardous & Solid Waste Division
Department of Environmental Quality



Miller & Sons Welding, Inc.

Phone 676-9613

123 Linden Way

P. O. Box 653

Heppner, Oregon 97836

Oregon Department of Environmental Quality
811 S.W. 6th Ave
Portland, Ore 97204

December 4, 1990

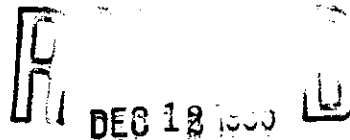
ref: out of state solid waste disposal

It is Miller and Sons Welding, Inc., opinion that the legislative emergency board was correct in reducing the surcharge. The rock and sand desert locations of Morrow and Gilliam county are not likely to be developed into tourist or business areas. A landfill is perfectly suited to this location and still generates a source of revenue.

Respectfully,

Joe F Miller

Joe F. Miller; President
Miller & Sons Welding, Inc.



Hazardous & Solid Waste Division
Department of Environmental Quality



COUNTY COURT

P. O. Box 788 :- Heppner, Oregon 97836
[503] 676-9061

LOUIS A. CARLSON, Judge
Heppner, Oregon
IRVIN E. RAUCH, Commissioner
Lexington, Oregon
G.W. "Jerry" PECK, Commissioner
Boardman, Oregon
LO RAYNE M. BOWMAN
Administrative Assistant

To: Oregon Department of Environmental Quality
811 SW 6th Avenue
Portland, Oregon 97204-1390

From: Irvin Rauch, Morrow County Commissioner
P O Box 788
Heppner, Oregon 97836

RECEIVED
DEC 13 1990

Hazardous & Solid Waste Division
Department of Environmental Quality

Subject: Out of State Solid Waste Fees

In regards to proposed reduction of out of state fees for solid waste, for "Lost tourism or bussiness development revenuees due to stigma of accepting out-of-state waste: I want to urge you to carry out the proposed reduction. I have noticed a number of visitors to the landfill in Morrow County and a check with the operators of the landfill in Gilliam County showed 105 visitors in a single month. Contrary to a loss of tourism, these landfills are proving to be our biggest tourist attractiions.

A handwritten signature in cursive script, appearing to read "Irvin Rauch".

Irvin Rauch

HILL, HUSTON, CABLE, FERRIS & HAAGENSEN

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DON K. LLOYD
LAURA J. WALKER

SUSAN S. FORD
JOSEPH W. WEST

DAVID K. McADAMS
OF COUNSEL

December 12, 1990

RECEIVED
DEC 13 1990

VIA HAND DELIVERY

Department of Environmental Quality
Solid Waste Permits and Compliance Section
Attention: Steve Greenwood
Hazardous and Solid Waste Division
811 S.W. Sixth Avenue
Portland, Oregon 97204

Hazardous & Solid Waste Division
Department of Environmental Quality

Re: Oregon Waste Systems, Inc.
Comments on Out-of-State Surcharge

Steve
Dear Mr. Greenwood:

On behalf of Oregon Waste Systems, Inc., I would like to submit these comments on the proposed surcharge on out-of-state waste disposed in the state of Oregon. These comments address two issues, (1) that the costs for in-state solid waste reduction activities continue to be included improperly as a component of the surcharge even though the Environmental Quality Commission ("EQC") sought to eliminate such costs; and (2) the Department of Justice statements that the out-of-state surcharge is legally defensible under the U. S. Constitution Commerce Clause. Although the Department of Environmental Quality ("DEQ") notice of opportunity to comment seeks to limit comments to the deletion of costs related to lost tourism, the EQC must consider comments on these two issues because they address information that was made public for the first time at the Legislative Emergency Board hearing in mid-November, well after the close of the public comment period.

Background.

At its November 2, 1990 meeting, the EQC adopted a rule establishing a \$2.75 per ton fee on the disposal of solid waste generated out-of-state and disposed in the state of Oregon. On November 16, 1990 the Legislative Emergency Board ("E-Board") reduced the fee to \$2.25 per ton by eliminating from the surcharge a component relating to lost tourism purportedly due to the stigma

Department of Environmental Quality
Attention: Steve Greenwood
December 13, 1990
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of accepting out-of-state waste¹. The EQC will now consider further the appropriate amount of the per ton surcharge on out-of-state waste.

The DEQ published notice of opportunity to comment on out-of-state waste and suggested that comments would be taken only on the proposal to remove the cost of lost tourism from the costs comprising the surcharge. OWS believes it is inappropriate to so limit the comments considering the new information that came to light during the E-Board hearings and other information that was not available at the time of opportunity for public comment on this matter.

Costs of In-State Solid Waste Reduction Programs Should be Excluded.

The out-of-state surcharge is comprised of nine component cost categories identified by the DEQ. The first two cost categories relate to costs identified by the Department as statewide activities for reducing environmental risk and improving solid waste management paid for through (1) the per ton fee on domestic waste and (2) general funds. As recommended to the EQC for approval at the November 2, 1990 meeting, the first cost category was recommended at \$.50 per ton and the second cost category at \$.42 per ton. At the EQC meeting the EQC eliminated \$.33 per ton from the first, \$.50 per ton, because such costs were related to the cost of solid waste reduction programs and household hazardous waste programs to be conducted totally within the state of Oregon and amounted to double counting. The EQC recognized that if the DEQ prepared two projected budgets, one assuming only in-state waste and another with both in-state and out-of-state waste, these costs would not be additional costs in the in-state plus out-of-state waste budget.

At the hearing before the General Government Subcommittee of the Legislative E-Board, DEQ staff explained each of the components of proposed surcharge. Subcommittee Chairman, Senator Thorne, questioned DEQ staff regarding the \$.42 per ton, identified as statewide activities for reducing environmental risk and improving solid waste management paid through the general fund. Senator Thorne asked specifically how much of the \$.42 was to be spent on in-state solid waste reduction programs and their

¹The E-Board also eliminated \$.01 from the cost category identified as "statewide activities for reducing environmental risk and improving solid waste management paid for through general funds."

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management. Steve Greenwood responded that 25%, or approximately \$.10 per ton will go for that purpose. Mr. Greenwood also acknowledged that most of the out-of-state waste that will be subject to the surcharge will come from the state of Washington and that the state of Washington has similar programs in place for which Washington is currently paying. See Exhibit "A" attached, Excerpt of Transcript, Legislative Emergency Board, General Government Subcommittee Hearing, November 15, 1990.

The costs of solid waste reduction programs in the state of Oregon and their management are not costs of disposal of out-of-state waste for several reasons. Solid waste reduction programs solely within the state of Oregon do not provide a benefit to out-of-state generators. Such costs can not be characterized in any way as a cost of disposal to the state of Oregon because these costs are also being incurred in the state of origin of the out-of-state waste for waste reduction programs of their own.² In addition, these costs would be incurred regardless of whether out-of-state waste is disposed in Oregon. For example, the City of Seattle has its own solid waste reduction programs and incurs costs to implement and administer these solid waste programs. To include such costs in the surcharge, not only does not provide a benefit to the City of Seattle out-of-state waste, but in addition it amounts to double counting. The EQC recognized this and reduced the originally proposed \$.50 per ton component of the surcharge to exclude costs of this type.

As indicated previously, the DEQ staff acknowledged at the E-Board subcommittee hearing that apparently \$.10 of the \$.42 per ton costs is for state solid waste reduction programs and their management. This \$.10 whether used directly for in-state solid waste program costs or for the administration of these programs, duplicates the costs already incurred by the sending jurisdictions and provides no benefit to the out-of-state waste generator or to the sending jurisdictions. These costs for in-state activities would be incurred regardless of whether waste from out-of-state is disposed in the state of Oregon and accordingly are not a cost of disposal of out-of-state waste. The EQC must delete from the proposed surcharge the \$.09 remaining of the \$.10 in order to be consistent with the position taken previously by the EQC and to avoid duplication of costs.

²Because of the risk of multiple taxation of the same activity, this cost component provides an additional basis upon which the surcharge violates the Commerce Clause. Tyler Pipe Industries, Inc. v. Washington State Department of Revenue, 107 S.Ct. 2810 (1987).

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The Surcharge Violates the Commerce Clause if the Department of Justice Analysis is Applied.

Not until the E-Board subcommittee hearing, well after the close of opportunity for public comment did the Department of Justice ("DOJ") indicate that it had provided to DEQ a written memorandum supporting its conclusion that the surcharge is defensible under the Commerce Clause of the U.S. Constitution. The DOJ's memorandum of November 13, 1990 is the first written justification for the Department's position on a differential surcharge. Because this is the first opportunity to provide comment on the DEQ's and DOJ's position on this critical issue, the EQC should not foreclose comments.

OWS has a number of comments on the DOJ memorandum. In the discussion section of the memorandum the DOJ acknowledges that the statute providing for the out-of-state surcharge establishes a "differential fee scheme." This is precisely what the U.S. Constitution will not allow. All of the legal arguments relating to the Supreme Court's analysis of a tax under the Commerce Clause will not be repeated here. It is sufficient to state that under the prevailing test of Complete Auto Transit, Inc. v. Brady, 430 U.S. 274, 97 S.Ct. 1076 (1977), the Supreme Court will find invalid a fee which discriminates against interstate commerce.³ A differential fee is the essence of discrimination -- unequal charges for identical activities. In this instance the disposal activities and services provided within the state of Oregon are identical; only the fee charged for out-of-state disposal is higher. The Supreme Court has consistently invalidated discriminatory state taxes.⁴ See, Comments of Oregon Waste Systems, Inc., Legal Memorandum, pages 12-15, October 2, 1990.

OWS also disagrees strongly with the legal analysis in the memorandum and its conclusions. Although the Justice Department cites many of the controlling cases in this area of law,

³The DOJ memorandum does not mention or even attempt to distinguish Complete Auto Transit. The Supreme Court does not apply the balancing test of Pike v. Bruce Church, Inc., 397 U.S. 137 (1970) to a tax or fee. See, American Trucking Assoc. Inc. v. Scheiner, 107 S.Ct. 2829 (1987); Armco v. Hardesty, 467 U.S. 638, 104 S.Ct. 2620 (1984).

⁴"[A] State may not tax a transaction or incident more heavily when it crosses state lines than when it occurs entirely within the state." Armco v. Hardesty, 467 U.S. 638, 642 104 S.Ct. 2620, 2623 (1984).

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the analysis of the cases and application of the holdings of the cases to the present surcharge is either absent or incomplete. For example, the Department of Justice suggests that a per se violation of the Commerce Clause occurs only where a statute on its face violates the Commerce Clause. However, per se violation of the Commerce Clause can also occur when a state or local regulation patently discriminate against out-of-state commerce. Philadelphia v. New Jersey, 437 U.S. 617, 626-27 (1978). That is exactly the effect of the surcharge regulation in this instance. It imposes a fee on the disposal of out-of-state waste that is higher than the fee imposed on the disposal of in-state waste although, the character of the waste and the disposal activity are identical.

The memorandum states correctly that in certain instances the test for validity under the Commerce Clause requires a court to apply the balancing test of Pike v. Bruce Church, Inc., 397 U.S. 137, (1970). However, the Supreme Court does not apply the balancing test to a tax or fee. Even if the Supreme Court was to do so, a key element of the Pike v. Bruce Church test that must exist before the test will be applied was not discussed in the DOJ memorandum. That element is that the statute, or regulation must regulate even-handedly.

"Where the statute regulates even-handedly to effectuate a legitimate public interest and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits. (Citations omitted). If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved and on whether it could be promoted as well with a lesser impact on interstate activities." Pike v. Bruce Church, Inc., 397 U.S. at 142. (Emphasis added.)

The surcharge on out-of-state waste is not evenhanded because the fee on out-of-state waste is higher than the fee on in-state waste.

It is noteworthy that although the Pike v. Bruce Church test was mentioned in the DOJ memorandum it was not applied to the facts in this case. Instead the DOJ justifies the differential fee if it is "reasonable" citing Evansville-Vanderburgh Airport Authority District v. Delta Airlines, Inc., 405 U.S. 707, 92 S.Ct.

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1349, (1972)⁵ and two U.S. Circuit Court cases.⁶ Although we would not disagree that a fee should not be unreasonable or excessive, if a fee is neither it is not sufficient to confirm the validity of a fee under the cases cited. In each case cited the fee in question applied uniformly to interstate commerce and intrastate commerce. Evansville, supra 405 U.S. at 717, 92 S.Ct. at 1355, (\$1.00 flat fee for passengers boarding flights at Indiana airports upheld where passengers who traveled on both interstate and intrastate flights were subject to the same charge.); New Hampshire Motor Transport Association v. Flynn, 751 F2d 43 (1st Cir. 1984) (Flat license fee imposed on all transporters of hazardous materials); Metropolitan D.C. Refuse Haulers v. Washington, 479 F2d 1191 (D.C. Cir. 1973) (\$5.00 per ton fee imposed on all hauler disposing waste at District of Columbia landfill).

The DOJ memorandum also attempts to support the sufficiency of the reasonableness test for the surcharge by citing Toomer v. Witsell, 334 U.S. 385 (1948), a case decided under the Privileges and Immunities Clause of the Constitution, not the Commerce Clause. Whether a case satisfies the Privileges and Immunities Clause has no relevance to whether a case satisfies the independent requirements of the Commerce Clause. The Justice Department's reliance on Toomer v. Witsell is like saying the surcharge does not violated the Due Process provisions of the Fourteenth Amendment or is not an unlawful taking under the Fifth Amendment. No matter how much the Department seeks on to rely on other provisions of the Constitution, the proposed surcharge must satisfy independently each requirement of the Constitution, in this case the Commerce Clause test.

Even if the test of Pike v. Bruce Church is applied the surcharge must fail. To apply Pike v. Bruce Church first a legitimate local purpose must be found. Here no legitimate local interest has been identified. However, it is clear that the local interest being served is revenue collection. Despite DEQ statements regarding preservation of landfill space, solid waste reduction and environmental liability, those interests are not

⁵The test of Evansville was replaced with the more specific test articulated in Complete Auto Transit v. Brady decided in 1977.

⁶One of the cases, Metropolitan D.C. Refuse Hauler's Association v. Washington, 479 F2d 1191, (D.C. Cir. 1973), does not even address the Commerce Clause. The decision adopts by reference findings and opinion on constitutional issues of the lower court. However, those issue address only equal protection and due process.

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being served.⁷ If those are the interests sought to be served by the law and proposed surcharge, the surcharge should apply equally to in-state and out-of-state waste because each could affect those interests. Further, the revenues collected from the surcharge will not in most instances be expended for those interests. It will instead simply be "continuously appropriated to the department to meet the costs of administering the solid waste programs." ORS 459.297(2). The surcharge is quite clearly and simply a means to generate revenue. An economic interest is not a legitimate local interest. New Energy Company of Indiana v. Limbach, 108 S.Ct. 1803, 1807 (1988).

If a legitimate local purpose could be found then the burden on interstate commerce is to be weighed against the legitimate local interest to be served by the law or regulation in question, taking into consideration whether alternative means exist for promoting as well the local interest with a lesser impact on interstate commerce.

Even if revenue collection could be considered somehow to serve a legitimate interest, there clearly are alternatives of accomplishing the objectives identified by DEQ that have less impact on interstate commerce. For example, on the issue of environmental liability the DEQ proposed surcharge applies to all of the out-of-state waste flows even though the DEQ's own analysis recognizes that the environmental risk is substantially greater at small landfills as compared to large regional state-of-the-art landfills in which most out-of-state solid waste will be disposed. A less burdensome impact would be to require financial assurance mechanisms for both the large and small landfills, old and new landfills, so that the costs of environmental liability protection is more directly related to the risks involved. Alternatively, the DEQ could require landfill operators to provide evidence of sufficient liability insurance or other forms of financial

⁷Even if those interests were being served, the regulation is invalid because it is discriminatory on its face.

"But whatever New Jersey's ultimate purpose, it may not be accomplished by discriminating against articles of commerce from outside the State unless there is some reason, apart from their origin, to treat them differently." Philadelphia v. New Jersey, 437 U.S. 617, 626-27 (1978).

See also, National Solid Waste Management v. Alabama Department of Environmental Management, 910 F2d 713, 720 (11th Cir. 1990).

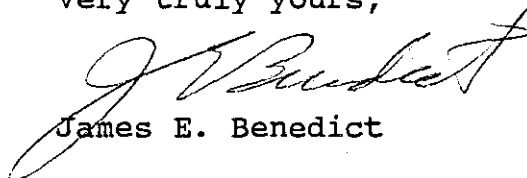
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assurance. If each landfill provided sufficient financial assurance to protect against the risk of environmental liability for all waste disposed, there would be no discriminatory effect on interstate commerce. The level of financial assurance could be tailored to the risk, if any, posed by each facility.

Similarly for the issue of tax credits, the Department has indicated that it will recover for tax credits in the surcharge irrespective of whether a specific facility has applied for, or received a tax credit. Also, the surcharge applies irrespective of whether the waste is disposed at a publicly owned or privately owned facility, in which case the publicly owned facility would not have received a tax credit. A less burdensome approach would recover the tax credit from those that received the credit.⁸

For these reasons OWS does not believe that the surcharge proposed is valid under the Commerce Clause of the U.S. Constitution, particularly where the surcharge on out-of-state waste is higher than the per ton fee imposed on waste disposed in-state. However, if the EQC adopts the proposed surcharge, in order to be consistent with its prior analysis the EQC should eliminate, as a component of the surcharge a minimum of \$.09 from the solid waste administration fees supported by the general funds.

Very truly yours,



James E. Benedict

JEB/kms

Enclosure

cc: Environmental Quality Commissioners
Fred Hansen
Robert Danko
William Jeffry
Arthur Dudzinski
Terry Milia
Doris Bjorn

⁸This ignores, of course, the issue of whether the EQC can revoke (as it has done by including this cost component in the surcharge) the tax credit that is otherwise provided by law.

LEGISLATIVE EMERGENCY BOARD
GENERAL GOVERNMENT SUBCOMMITTEE HEARING
EXCERPT OF TRANSCRIPT
November 15, 1990

Sen. Thorne: Let's go back to the first one again. I've been pondering some of the questions that I couldn't get formulated. There may be a way for me to try to make better sense of this is, can you tell me, for an example, of the general fund to \$.42 how much of that is spent in this state for the management of our state for the reduction program? Can you get close to that at all?

Greenwood: Uhh.

Sen. Thorne: Is it possible to reduce it to a, to a fee comparison?

Greenwood: Mr. Chairman, about 25% of that cost is related to waste reduction activities.

Sen. Thorne: Now, I am thinking of the \$.42.

Greenwood: Yes, 25% of that.

Sen. Thorne: About \$.10 or a little more is, \$.10 of the general fund portion goes to a sort of a reduction strategy or management.

Greenwood: That's correct.

Sen. Thorne: Can you tell me or walk through the rest of that \$.42. Do you have some breakdown on what the rest of it does then?

Greenwood: Mr. Chairman, the rest of the \$.42 per ton I don't have specific figures related to these activities. Uh, but...

Sen. Thorne: Just ballpark. I'm just trying to arrive at some principle or basis here to make a decision.

Greenwood: I would, I would spread probably evenly across the activities of rulemaking and development of statewide policy, the administrative costs for the state's solid waste regulatory program and statewide solid waste management planning. And I think you could, if you wanted to, spread equally across those three. And the waste, that's excluding the 25% for waste reduction, so you

probably do 25% for each of those four activities.

Sen. Thorne: Okay. The major source, well, the source of this waste that we are talking about right now is the state of Washington.

Greenwood: That's correct, currently.

Sen. Thorne: And do you know if they have programs that deal with the items you've talked about, the reduction aspect of 25% solid waste management, the policy, the administrative cost, do they have like type programs?

Greenwood: Mr. Chairman, I don't know specifically what their line item budget looks like, but I think we can assume they have very similar programs.