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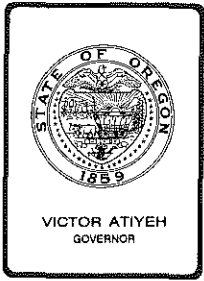
OREGON  
ENVIRONMENTAL QUALITY  
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MATERIALS



State of Oregon  
Department of  
Environmental  
Quality

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# *Environmental Quality Commission*

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## MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. O, September 19, 1980, EQC Meeting

### Request for the EQC to:

- (1) Adopt Administrative Rule 340-53-005 through 035, Development and Management of the Statewide Sewerage Works Construction Grants Priority List, and
- (2) Approve the FY 1981 Construction Grants Priority List Developed In Accordance With the aforementioned Administrative Rule.

## Background

1. Federal regulations, 40-CFR 35.915, require that federal grants for construction of municipal waste water treatment works as authorized by Section 201 of Public Law 95-217 "... be awarded from allotments according to the state priority list, ..."
2. Federal regulations also require that such a priority list "... be based on the approved state priority system." The state priority system must describe the methodology used to rate and rank projects that are considered eligible for assistance and must be designed to achieve optimum water quality management consistent with the goals and requirements of the 1977 Clean Water Act.
3. Because of advice from legal counsel and other concerns, it was proposed that the state priority system be adopted as administrative rules. The FY 81 priority list although requiring EQC approval, need not be adopted as an administrative rule.
4. The administrative rule consists of the criteria adopted by the Commission in October 1979, edited to conform to administrative rule format. Some clarification was added relative to segmenting and scheduling of proposed projects. Since changes were minimal, it was decided that adoption of the rule and approval of the priority list could be carried out concurrently.



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5. On June 20, 1980, the Commission granted staff the authority to conduct a public hearing on the proposed administrative rule and the draft FY 81 priority list. On the same date, Notice of proposed rulemaking and associated materials was filed with the Secretary of State. On June 20, 1980, Public Notice of the proposed rulemaking was mailed to the Department's mailing list of interested persons, followed by a fact sheet and copies of the proposed rule and priority list on July 2, 1980.
6. On August 5, 1980, in Portland, a Public Hearing was held concerning the proposed administrative rule and proposed FY 81 priority list. Oral testimony was taken at the hearing and written testimony was accepted prior to and after the hearing, through August 15, 1980. A summary of such testimony, along with staff response, is provided as Attachments A & B.

#### Evaluation and Discussion

A number of issues have arisen both as a result of testimony and as a result of trends in current federal legislation. Following is a discussion of these issues:

##### 1. Distribution of Grant Funds

Public testimony has indicated concern that very few projects were scheduled for construction (Step 3) grants in FY 81 and 82. On the July draft, only 4 projects were scheduled for funding prior to FY 83; Bend, Douglas County and MWMC in FY 81; Bend, Douglas County, MWMC, and Portland Sludge in FY 82. Since the preparation of the draft the Douglas County Project has been bypassed and thus does not retain its transition status. As a result, it has been dropped to number 18 on the proposed priority list and is no longer scheduled for funding in FY 81 or 82. This would leave only 2 construction projects scheduled for grants in FY 81 and one more in FY 82 out of the 138 projects on the priority list.

Several reasons exist for this situation. The transition policy previously used allowed projects, once initiated, to receive grant funds until completed. Even though no new projects were to receive transition preference after FY 79, those previously transitioned retained that status. Additionally, those projects still retaining transition status are among the most costly on the priority list. Out of total grant amounts of about \$300 million on the FY 81 priority list, the five transition projects represent about a third or \$100 million in addition to previous grants for the same projects of about \$65 million.

Because of the growing concern, a number of specific policy changes have been proposed and are discussed later in this report. These consist of

discontinuing the policies of transitioning and combining project components and providing a reduced percentage of grant participation if allowed by federal law or regulations. These changes would not go into effect until FY 82 to allow potential grantees to make suitable adjustments.

The proposed changes will allow some of the highest ranking projects, including health hazard related projects, to move into construction in FY 82. However, despite the proposed changes, the costliness of some projects will continue to create an unbalanced funding situation.

It is strongly recommended therefore that all available options be examined for achieving broader utilization of limited grant funds. Within federal constraints on the state's management authority, policies should be formulated or revised to insure that limited funds do indeed maximize state as well as federal water quality benefits. Such policy would be in lieu of or in addition to changes already proposed. Options available to the state might include:

1. Restricting eligibility to certain project components. As an example combined sewer separation or I/I removal might be considered a fully local responsibility.
2. Limiting the total amount of grant funds to a single applicant in a single funding year. Such limitation might be based on a percentage of the state's allocation.
3. Reducing or eliminating grant eligibility for reserve (future growth) capacity.
4. Avoiding "repeat" grants for projects previously constructed with grant funds.
5. Revising the ranking criteria to include additional factors such as local financial capability and indirect benefits.

It is felt that any policy modifications intended to reallocate funds could not be put into effect in FY 81 and thus would not affect the funding situation in that year. In fact, because of project bypasses and other factors, the proposed FY 81 priority list includes only one project on the fundable portion of the list. However, in FY 82, because of changes already proposed, 14 construction projects would receive grants. Additional policy changes could conceivably allow even more projects to receive grants sooner.

## 2. Transition Policy

Prior to FY 1980, projects for which a Step 2 grant had been awarded were assured of a continued high position on the priority list through the

"transition" policy. These projects were identified as transition projects and were not ranked according to the approved criteria, but were placed in the same relative position at the top of the next year's priority list. The criteria adopted in October 1979 modified this policy by providing that only those projects classed as transition in FY 79 would continue to receive transition status in FY 80. By specifying that future projects would not be transitioned, this decision represented the beginning of the phasing out of the transition policy.

Seventeen projects were transitioned on the FY 80 priority list. Because of either grant award or project bypass only five of these transition projects remain on the proposed FY 81 priority list; Bend, MWMC, Portland-Sludge, Roseburg-Rehab., and Portland S.E. Relieving Interceptor.

In order to insure that limited grant funds are utilized to fund projects or components providing the most water quality benefits, and to complete the phase-out of the transition policy it is proposed that no projects, including the 5 transitioned in FY 81, receive transition status in FY 82 and beyond. The elimination of the transition policy will require that previously transitioned projects for which a grant is not awarded prior to October 1, 1981, will be ranked according to the established criteria and thus will be moved down on the priority list.

The elimination of transitioning beginning in FY 82 would have a different impact on each previously transitioned project. The assessment of that impact is as follows:

Bend Construction of the treatment works, interceptors, collection system, and interim effluent disposal will be essentially complete in FY 81. The only component identified for grant funding after FY 81 is permanent effluent disposal in FY 82. At this time, however, no plan has been approved for permanent effluent disposal.

The estimated cost of the entire Bend project is about \$50 million. To date about \$40 million has been expended including federal grants of about \$30 million. Additionally, the project has received state grant funds of about \$7 million. The permanent effluent disposal would cost an estimated \$2 million and be eligible for a federal grant of \$1.5 million. To date the project has received federal grants totaling 60% of total project costs.

Since the Bend project is nearly complete and the remaining portion, effluent disposal, would rank number 2 on a non-transitioned list, the discontinuation of the transition policy would probably have no effect on the project.

MWMC The estimated cost of the MWMC project is about \$115 million. Total expenditures to date are about \$19 million, of which about \$14 million has been certified for EPA grants. By the end of FY 81, when the transition policy would be discontinued, it is expected that \$65 million will have been expended representing about 55% of total project costs. The federal grant on this completed work will be about \$50 million or 43% of total project costs. According to the latest information from MWMC, components to be completed after FY 81 are; a portion of the treatment plant, sludge disposal, pump stations, and sewer system rehabilitation. The treatment plant has a sufficiently high priority point score to receive grant funding in FY 82, even if the transition policy is discontinued. Grant funds for the other project components might be delayed until FY 84 or FY 85. By the end of FY 82, however, the project should have received EPA grants representing about 55% of total project costs, even if the transition policy is discontinued.

Portland/Sludge Disposal This project is the final phase of upgrading the Portland Columbia Blvd. Sewage Treatment Plant. The first phase was expansion of the primary treatment capacity, the second phase was adding the secondary treatment process and the third phase was solids handling and disposal. Both Phase 1 and 2 were funded at the 75% level from grant funds. Of Phase 3 sludge disposal, the digesters are under construction and predesign has been completed on gas utilization. Sludge disposal is awaiting final decision on the disposal site and design and construction.

There is an estimated \$13 million of eligible cost remaining to be funded. The City has previously received \$14.1 million based on 75% of eligible costs of \$18.8 million. The \$14.1 million awarded to date represents a grant level funding of 49% of the total estimated eligible cost of about \$32 million. If the transition policy is discontinued in FY 82, grant funds might not be available to complete the project until FY 85 or 86.

Roseburg/Rehab. This project consists of rehabilitation of Roseburg's sewer system. The City is currently not a qualified grant applicant but on the assumption that it will qualify in the future, elimination of transitioning policy would delay the project for funding until about FY 84.

Steps 1 and 2 have been completed with grant funds. However, construction has not started and the project has not received any Step 3 grant funds. Based on an estimated total eligible cost of \$2.5 million, the City has received \$193,125 or about 8% overall funding for the project.

Portland/S.E. Relieving Interceptor This project consists of four construction phases. Phases 1 and 2 have been constructed with grant funds. Phases 3 and 4 are yet to be constructed. If transitioning is dropped, grant funds for these phases would probably be delayed until FY 85.

Based on an estimated total eligible cost of \$26 million, the City has received \$8.4 million for construction of Phases 1 and 2. This amount represents 32% grant funding of the overall project.

The alternative to discontinuing the transition policy is to continue to fund the 5 transition projects before funding any of the ranked projects on the list. Comparing the total cost of the transition projects of \$104 million with the anticipated \$117 million in grant funds through FY 83 is indicative. It becomes apparent that a continuation of the transition policy would delay the funding of other projects, including the highest ranking projects in the state until FY 84 or later. Among projects that would be delayed are those needed for the elimination of certified public health hazards.

In conclusion, it is recommended that the transition policy not be continued next year when developing the FY 82 priority list. Furthermore, a provision has been included in the presently proposed criteria which indicates such intent and thus allows those effected to adjust their programs accordingly. The scheduling of projects on the draft FY 81 priority list, as revised, reflects this decision for FY 82 and beyond.

### 3. Ranking of Treatment Works Components

Treatment works component is defined in the proposed administrative rule as "... a portion of an operable treatment works..." such as a treatment plant, interceptor, rehabilitation program, etc. When developing the FY 80 priority list project components were identified based on available information. This practice was continued in the development of the FY 81 priority list. In FY 80 all components of a project were assigned the same priority points, and thus the same priority ranking, as the highest ranking component of the project. On the FY 81 priority list, this combining of project components was continued for most projects, although such combining was only done where the total project grant would be less than \$10 million.

It is proposed for FY 82 and beyond, that all identified components be ranked separately according to the approved ranking criteria. This policy would compliment the proposal for discontinuance of the transition policy and thus move toward providing grant funds to projects based on water quality benefits reflected in the ranking criteria.

The impact of the proposed policy would be to lower the ranking of project components which provide less water quality benefit while maintaining the higher ranking of more beneficial components. This, in effect, divides a project into several pieces, possibly spread through the priority list. As an example; while a treatment plant might have a "B" classification and be scheduled for funding in FY 83, an interceptor to serve the same community might have a "C" classification and not be scheduled for funds until FY 86.

If a community were unable or unwilling to wait for a grant for lower ranking components and proceeded with local funds, the net result would be a grant of something less than 75% based on total project costs. If the community was able to wait for grant funding, the entire 75% may be available eventually. However, inflation would have driven costs up in the meantime. Meanwhile the most pressing water quality needs would have been addressed first.

The alternative to this proposed policy is to continue to allow less needed portions of projects to receive preferential ranking through combining with higher ranked components to the detriment of more greatly needed portions of other projects.

#### 4. Moratoriums or Limitations on Sewer Connections

Over the years the Department has imposed a limitation on the number of sewer connections that a city can approve as a management tool to prevent overloading of the system and resulting degradation of public waters. There are many of these connection limitations presently in effect throughout the state. These connection limitations do become a moratorium when the city has used the number of connections allowed by the Department.

Prior to 1979, the priority criteria did not recognize the Department's policy of imposing connection limitations as a means of identifying a need for preventive pollution control action. During 1979, the Department reviewed this lack of recognition and concluded that it should be acknowledged in the regulatory emphasis category. As a result the FY 80 priority criteria approved by the Commission included the assignment of 120 regulatory emphasis points for a project which had reached the moratorium level or had a connection limitation imposed through either voluntary or involuntary means. This level of point assignment is exceeded only by documented public health hazard projects requiring immediate corrective action - 130 points, and projects which received a limited time extension to meet the 1977 secondary treatment goals of the Federal Clean Water Act - 150 points.



The EQC is mandated by federal law to insure that projects which were unable to meet the 1977 goals of secondary treatment are brought into compliance at the earliest date possible. Further, it has been a policy of the Commission to implement the state laws which require elimination of documented public health hazards requiring mandatory annexation. Therefore, the Department feels that it has provided the strongest emphasis possible within the state and federal laws, in recognizing connection limitations in determining project priority ranking and thus proposes no change.

5. Reduced Grant Participation

Present federal law and regulations require that all eligible work be funded at 75 percent. Discussion and draft legislation at the national level indicate a continuing interest in allowing a reduced level of grant funding of as low as 50 percent at the discretion of a state. In Oregon, where the need for construction grants far exceeds the available funds, such a reduction would appear advantageous. Although such a reduction would require a greater local share of waste water treatment costs, it would allow many more projects to be funded in a shorter length of time thus achieving greater water quality benefits sooner. It is proposed therefore that the priority criteria specify that grant participation shall be limited to 50 percent in FY 1982 and beyond if allowed by changes in federal law. Additionally, as recommended in discussion item 1, other alternatives for limiting grant participation should be examined. Such alternatives would probably be based on reduced eligibility rather than on a reduced percentage and would become even more crucial if the reduced percentage is not allowed by federal law.

6. Health Hazard Related Projects

The approved FY 80 and draft FY 81 priority criteria give consideration to a health hazard only when correction will require extraordinary measures such as mandatory annexation or district formation and where such health hazard has been formally certified by the EQC or the State Health Division. Under such conditions, the project receives a regulatory emphasis score of 130 out of 150 points. If additionally, the project will eliminate surface or underground water pollution, it receives an "A" classification.

At the hearing testimony was presented that many areas of the state exist which have severe health hazards yet do not satisfy the criteria for an "A" classification. Although this is no doubt true, the Department must also consider whether surface or groundwater degradation exists. Before giving a project the preferred "A" classification, the Department must be assured that the public health

hazard as well as the water quality degradation actually exist; thus the requirements for official recognition of the problem. Although additional health hazards may exist which would receive an "A" project status if adequately documented, the emphasis should be on better documentation and "official" recognition of the problem rather than a relaxation of the priority criteria.

7. Collection System Eligibility

Prior to 1976, collection systems were not eligible for grant funding in Oregon. However, during that year Oregon received a larger than anticipated allocation of grant funds. Thus the eligibility of collection systems was reviewed.

It was decided that under very limited conditions, certain collection systems could be certified for grant funds. The conditions specified that collection systems would be eligible for grant assistance where such systems are required to comply with a mandatory annexation order issued pursuant to ORS 222 or DEQ regulations requiring elimination of waste disposal wells. A stipulation which accompanied this expansion of eligible categories was that the eligibility of collection systems would not be extended unless the Environmental Quality Commission found that sufficient federal funds were available to permit extension without jeopardizing the construction grant program for essential treatment works and interceptor sewers. In FY 79, the state's allocation was considerably less than expected. In that year the state received \$11.2 million (down from \$64.9 million to \$53.7 million) less than was expected. This reduction in funding coupled with rapidly rising construction costs and increasing inflation caused the Department to review the continued eligibility of collection systems. A review of the 5-year planning list concluded that for the foreseeable future, federal funds would be inadequate to address the current needs for essential treatment works and interceptor sewers because funds would not be available for high priority projects that were ready to proceed. Based on this conclusion, the staff recommended that the EQC approve eliminating the eligibility of collection systems for FY 80 and beyond, except in those cases where they had been previously certified for a Step 1 grant. With the continuing uncertainty of the future level of funding of the program, it would appear that no change in this policy is warranted. It is therefore proposed that collection system eligibility be limited to those already so determined on the FY 80 priority list.

Based on public testimony and on the preceding evaluation, modifications have been made to the administrative rule as follows:

1. Section 340-53-015 was modified to indicate transitioning would be discontinued in FY 82.

2. No specific changes were made in the proposed administrative rule relative to ranking of treatment works components. Section 340-53-015 already provides for limiting components or segments included in a project.
3. Moratoriums or limitations on Sewer Connections; Health Hazard Related Projects; and Collection System Eligibility were issues reviewed by staff. It was concluded that none of these issues warranted revision of the proposed rule at this time.
4. Section 340-53-020 was amended to indicate that although grant participation will be 75% in FY 81, the percentage to be used in the future will be 50% if allowed by federal laws and regulations. Further, the Department is instructed to examine other alternatives for reducing the extent of grant participation in individual projects for possible implementation beginning in FY 82 with the intent of spreading available funds to address more of the high priority needs in the state.

#### Summation

1. Federal regulations require that construction grants be selected from a statewide priority list developed according to an approved priority system. A proposed administrative rule was drafted which consists of the FY 80 criteria modified to administrative rule format with clarification of some management concepts. A draft priority list was developed based on the proposed rule.
2. After public notice, distribution to the Department's mailing list, and publication by the Secretary of State in July, a public hearing was held on the proposed administrative rule and priority list.
3. Public testimony was received prior to, at, and subsequent to the the hearing which in addition to providing data, also addressed a number of issues including:
  - a. Distribution of grant funds
  - b. Project transition policy
  - c. Ranking of treatment works components
  - d. Moratoriums or sewer connection limitations
  - e. Reduced grant participation
  - f. Health hazard related projects
  - g. Collection system eligibility.

Attachment A includes a list of attendees and summaries of oral and written testimony. An Attachment B includes the staff action on testimony. A detail discussion of each of the above issues is contained in the body of this report.

4. Based on the above testimony and identified issues, staff has revised the proposed administrative rule which is included as Attachment D. Major changes include the following:
  - a. No projects will receive preference as "transition projects" after FY 81.
  - b. Grant participation will be limited to 50 percent in FY 82 and beyond if allowed by changes in federal law and regulations.
5. Based on modifications to the proposed rule as well as new information, the draft priority list was revised. Changes are indicated in Attachment B. Attachment C is the revised draft priority list. Attachment E is the priority points list.

Director's Recommendation

Based on the summation, it is recommended that the Commission:

1. Adopt the proposed criteria contained in OAR 340-53-010 (Attachment D) as administrative rule and instruct staff to forward the rule to the Secretary of State for filing and to EPA for approval.
2. Approve the proposed FY 81 construction grants priority list contained in Attachment C.



William H. Young

Attachments:

- A. Public Hearing Report
  - Exhibit 1 - List of Attendees
  - Exhibit 2 - Summary of Oral Testimony
  - Exhibit 3 - Summary of Written Testimony
- B. Evaluation of Public Testimony
  - Exhibit 1 - Staff Action on Oral and Written Testimony
  - Exhibit 2 - Staff Corrections to the Draft FY 81 List
  - Exhibit 3 - FY 81 Priority List Deletions and Additions as Compared to the FY 80 List
- C. Recommended FY 81 Project Priority List
- D. Administrative Rules
- E. Priority Points List

WEG:l  
WL240 (1)  
229-5314  
September 10, 1980

## PUBLIC HEARING REPORT

A public hearing was conducted on the administrative rules and FY 81 priority list on August 5, 1980, at the City Council Chambers, City Hall, Portland, Oregon. Mr. Harold L. Sawyer, Water Quality Division Administrator, acted in the capacity of Hearing Officer. The hearing was opened at 10:10 a.m. with a brief explanation of the purpose of the meeting by the Hearing Officer, followed by public testimony until the hearing was closed at 11:35 a.m. The record was held open until 5 p.m., August 22, 1980, to receive additional written testimony.

Attachment A consists of the following exhibits:

EXHIBIT 1	List of Attendees
EXHIBIT 2	Summary of Oral Testimony
EXHIBIT 3	Summary of Written Testimony

EXHIBIT 1  
LIST OF ATTENDEES  
August 5, 1980 Public Hearing  
on  
FY 81 Priority List

<u>Name</u>	<u>City/Representing</u>
Beryl Taylor	Charleston Sanitary District
Dorothy Richards	Charleston Sanitary District
Clifford Sanders	City of West Linn
Suzanne Van Orman	City of Oregon City
Ron Thom	City of Oregon City
Steve Smelser	City of Oregon City
John Tye	City of Oregon City
Kevin Hanway	Portland Home Builders Association
David Abraham	Clackamas County Environmental Services
Charles Anderson	City of Gladstone
Leonard Strobel	City of Gladstone
Alfred Simonsen	City of Oregon City
William Guenzler	City of Cottage Grove
Art Altman	MWMC/BCS
Claudia Robinson	Wauna Westport Sanitary District
Robert Thomas	Crescent Sanitary District
Milo Ullstad	City of Corvallis
Norman Jensen	Rural Communities Assistance Program

WL240.A (1)  
8/26/80

## EXHIBIT 2

SUMMARY OF ORAL TESTIMONY  
SEWAGE WORKS CONSTRUCTION GRANTS  
ADMINISTRATIVE RULE  
AND  
PRIORITY LIST

August 5, 1980

Beryl Taylor, Charleston Sanitary District

Mr. Taylor stated that Charleston has constructed a million gpd system consisting of pumping stations interceptor lines and a treatment plant. Although the system was designed for 5,000 people only 288 people are hooked up because of inability to fund a collection system. The voters must be asked to authorize additional funds. A 1979 DEQ survey concluded that from 30-80 percent of septic tanks were failing; this was confirmed by Health Division in 1980.

Mr. Taylor was concerned that the South Slough Estuarine Sanctuary may become contaminated by human waste and that the shellfish harvesting may also suffer. Under present rules the Charleston collection system couldn't get on priority list. Mr. Taylor urged that DEQ review and possibly revise the criteria (to fund collection systems). Mr. Taylor warned that all seven fish processing plants in the area might go out of business because they are dumping waste fish into inter-tidal waters.

In conclusion, Mr. Taylor commented on the prosperity of Greece and Athens due to \$70 billion in U.S. foreign aid; wouldn't it be nice if Oregon had that money.

Claudia Robinson, Wauna Westport Sanitary District

Ms. Robinson urged that the letter classification for the Wauna Westport project be increased from "B" to "A". She recounted the history of the project from 1971 until the present, including official DEQ, Health Division, and County Sanitarian recognition that a health hazard exists due to raw sewage discharge into Plymton Creek, a tributary of the Columbia River. She noted that, although the findings did not conform to the specific criteria for letter class "A", it is time to correct the problem. A County Service District was formed in 1978. Ms. Robinson urged that regulatory emphasis be changed from "90" to "130" because the project is needed to alleviate a public health hazard or at least "120"; because of a recommended building moratorium.

David J. Abraham, Tri-City Service District

Mr. Abraham requested that he receive copies of any testimony received. He stated that he represented Tri-City/County Service District including the cities of Oregon City, West Linn and Gladstone. He emphasized that because of federal funding policies and inflated costs, a new direction is needed in the construction grants program; a new direction, he feels, that is not contained in the 1981 criteria and priority list. The policy of "blindly" funding Step 3 projects under construction misses statewide water quality objectives. He suggested that the

criteria minimizes the significance of enforcement actions taken by DEQ against communities. DEQ has imposed moratoriums against building in Oregon City and Gladstone and is presently formulating a building limit policy for West Linn.

He stressed that these moratoriums are a severe hardship to the communities. Mr. Abraham pointed out that the criteria does not recognize a moratorium as a water quality problem; a philosophy inconsistent with the effects of a moratorium on a community.

Mr. Abraham discussed the increase in project cost from \$12 million in 1978 to over \$50 million in the final plan of which about \$33 million is to be grant funded, with corresponding increases in service charges, taxes, and connection fees. Mr. Abraham stated that the communities are committed to the program and will vote on a bond issue for \$25 million in September.

Mr. Abraham failed to see the equity in policies that impose a moratorium on one community and then assign a higher priority on projects where no moratorium exists, or where communities benefit from "windfall" priority assignment under the criteria. He emphasized that the cities of Oregon City, West Linn and Gladstone cannot stand by and let the situation continue as proposed in the criteria and it is past time when a new policy should be employed. The problem must be resolved with an equitable policy based on statewide need for water pollution abatement.

Mr. Abraham believes that the goal is achievable with some modifications in the proposed criteria.

1. Projects that correct pollution problems in communities subject to DEQ imposed moratorium should have an "A" classification. If problem is not severe enough to rate "A", then moratorium is not justified.
2. Eliminate transition policy for construction projects. Transition is not acceptable for achieving the most effective program of water pollution abatement on a statewide basis and must be abolished. The ranking by DEQ of projects by component is an essential step. The elimination of transition policy would rank each component of each project according to the most critical water pollution condition.

Phasing of projects over several years allows communities to develop workable financial plans for funding local share of projects allowing for inflation or the desirability of waiting for federal funding.

Mr. Abraham emphasized that the credibility, due to DEQ's past achievements in upgrading water quality, is at stake. The burden must be redistributed more equitably to all jurisdiction in the state. "Let others in the state share an equal burden or at least a more equitable burden."

#### Ron Thom, Oregon City

City Commissioner, Mr. Thom, was appearing in opposition to the proposed criteria. He reinforced Mr. Abraham's point about the DEQ imposed moratorium in Oregon City, and points out that according to the criteria, Oregon City did not warrant an "A" classification because of lack of formal fact finding. He felt, however, that Oregon City should have an "A". Development in Oregon City and Gladstone has come to a halt as a result of lack of plant capacity. This lack of development



decreases city income in times when such income is badly needed to provide essential services. Additionally, Oregon City is subject to law suits because of its failure to issue additional permits.

Mr. Thom concluded that Oregon City is in a "short tight place" that it can't get out of unless the criteria is changed.

Alfred Simonson, Oregon City

Mr. Simonson, the City Manager of Oregon City, supported the testimony of Mr. Abraham and Mr. Thom. He urged reconsideration of funding allocations as far as time-line is concerned for the Tri-City project.

Joe Steinkomp, West Linn

Mr. Steinkamp, speaking as chairman for Tri-City committee for a clean environment, urged that DEQ act in good faith in prioritizing projects throughout the state. He discussed the activities of his committee in providing grass roots support for the Tri-City project and stated that the project is needed for the community to take advantage of economic opportunities.

Mr. Steinkamp supported previous testimony and stated that the DEQ imposed moratorium is not fair to community planners and developers. He claimed that because of the city's unique position, it should be the Number 1 priority project or at least an "A".

Speaking as chairman of West Linn Planning Commission, Mr. Steinkamp expressed the difficulty of conducting comprehensive planning under the uncertain sewer conditions. He further stated that each city is committed to the regional plan and cannot go it alone. Without the project, he said, health hazard may develop or might already exist in outlying areas. In conclusion, Mr. Steinkamp pledged continuing support for the project.

Clifford Sanders, West Linn

Mr. Sanders, City Administrator of West Linn, stated that his city is concerned about the priority and scheduling of the tri-city project. Specifically, he was concerned that the project which has taken nine years to develop is not scheduled for funding until FY 83. Mr. Sanders felt that a community having pollution problems sufficient to limit development should warrant the highest priority.

Steve Smelser, Oregon City

Mr. Smelser, a home builder in the Oregon City area, related how he has had to move his business to new areas of the county as a result of the moratorium. He asked that the Tri-City project be moved higher on the priority list or the moratorium relaxed.

Kevin Hanway, Tri-City (Portland Home Builders)

Mr. Hanway, Staff Attorney for Portland Home Builders Association, supported previous testimony and reiterated the adverse effects of the moratorium. He stated that a moratorium should rate an "A" classification and that projects should be balanced according to pollution abatement benefits.

Suzanne Van Orman, Oregon City

Ms. Van Orman discussed her personal interest in the Tri-City project as a landowner. She further discussed the process of forming the District and informing people about sewage problems. Ms. Van Orman would consider it a "travesty" if the prioritization jeopardized the project. A lack of commitment to the project by DEQ would damage the agency's credibility but the citizens would have to live with the problem.

John Tye, Oregon City (Compass Engineering)

Mr. Tye discussed the reduction in development and growth since the moratorium. He emphasized the unattainability of complying with LCDC mandated comprehensive plans and expressed a wish to have the Tri-City project funded or the moratorium relaxed.

Charles Anderson, Gladstone

Mr. Anderson, Gladstone Councilman, agreed with previous testimony and discussed the inability to develop lands zoned commercial and industrial. He added that taxes and revenues from these lands is needed to reduce city tax rates. He reiterated the inequity of imposing a moratorium and then assigning higher priority to cities without moratoriums. If the project does not rate an "A" the moratorium is unjustified. He concluded that the Tri-City project should be placed in project class "A".

Leonard Strobel, Gladstone

Mr. Strobel, Gladstone City Administrator, agreed with previous testimony and emphasized the lack of commercial development as a result of the moratorium. He stated that without the commercial development a shortfall in revenue can be expected. Mr. Strobel mentioned the forethought of the three cities in planning ahead and his feeling that the large projects could be stretched out further to provide money for Tri-City.

Robert Thomas, Crescent Sanitary District

Mr. Thomas, Attorney for the District, requested that the project be raised on the priority list. He felt that the project class could rate a "C" and possibly a "B" and the regulatory emphasis should be at least 120. He cited a limitation on subsurface sewage permits caused by a high water table and prior saturation. Mr. Thomas said that contamination can be measured at the groundwater level. The District has been formed and is ready to proceed. He stated that additional documentation will be submitted prior to August 15.

William Guenzler, Cottage Grove

Mr. Gruenzler, City Engineer, felt that the 1981 criteria went in the right direction but not far enough; specifically he noted the need to modify the transition policy. He cited MWWC which has components with scores of from B 261.51 to C 196.58. Under present policy Cottage Grove with B 240.74 would not be funded until after MWWC, or ;1974. Mr. Guenzler suggested that individual project components be ranked so that the best water quality project receive grant funds

available. The problems of communities adversely effected by a new transition policy would be no more severe than problems faced by communities not now receiving funds under the proposed criteria.

Milo Neil Ullstad, Corvallis

Mr. Ullstad submitted written testimony in regard to Corvallis Airport project. The written testimony recommends changing the stream segment points from 48.00 to 91.18 because of the discharge point.

Norman Jenson, Rural Communities Assistance Program

Mr. Jenson discussed the sewage plight of many small communities and the desirability of developing alternative systems for such communities. He expressed a desire for DEQ to give special consideration to small communities, particularly onsite management. He also recommended a review of the transition policy. The written testimony made specific recommendations for wording in the administrative rule; all aimed at expediting alternative systems for small communities.

Art Altman, MWMC

Mr. Altman, BCS Project Manager, discussed the need to change the target certification date for "Agripac" because a study has indicated that present plant capacity could be stretched by getting Agripac out of the system. MWMC would like to move forward first with Agripac. He also stated that priority points were not listed for all components of the project. He stated that since many components of the project must be constructed at the same time, all components should have the same point and letter score. He also pointed out that MWMC was ready to proceed with the following, based on grant dollars: Letter June 18, 1980

\$46.31 million in FY 1981  
\$17.463 million in FY 1982  
\$10.511 million in FY 1983.  
\$74.28

These differ from allocations listed on FY 81 priority list. Additional testimony is to be provided later.

RTE:s  
WL195 (1)  
9/5/80

EXHIBIT 3

PUBLIC HEARING

CONCERNING

FY 81 CONSTRUCTION GRANTS PRIORITY LIST

SUMMARY OF WRITTEN TESTIMONY

BCVSA-Whetstone (7/21/80)

Requested a change in Project Class from D to B for the Whetstone Project and the addition of a Step 1 for that project.

BCVSA-Whetstone (Rogue Valley COG 7/31/80)

Recommended increasing priority of BCVSA Whetstone Project from Class D to B but limited to Step 1 only.

City of Canby (8/12/80)

Request to be placed on the priority list.

Carmel-Foulweather Sanitary District (7/7/80)

Requested a high priority for the project.

Clackamas County Rhododendron-Welches (Memo from DEQ NW Region 8/4/80)

Provided bacteriological survey of area.

City of Corvallis (7/25/80)

Requested a change in the stream segment points for the Corvallis Airport based on information that the discharge ultimately reaches the Willamette River.

City of Cottage Grove (8/4/80)

Recommended elimination of "transitioning" of pollution projects so that severity of water quality problem can receive appropriate ranking.

Charleston Sanitary District (7/18/80)

Wants the state to certify the District's collection system for grant assistance.

City of Dallas (8/14/80)

Requested that the I/I segments of the project be eliminated and STP improvements added. Included revised cost estimates.

City of Eagle Point (7/25/80)

Requested a change in priority for the Eagle Point project based on a change in letter code, stream segment ranking, population emphasis and project type.

City of Eagle Point (7/24/80)

Made the following general comments:

1. Large projects should be phased and no project should receive more than 5% of the state's allocation.
2. Fund should be reserved for small cities.
3. Grant funds should not be used for separation of combined sewers.
4. Only existing point sources should be funded.
5. Level of required treatment should be reduced.
6. Funding of STP capacity should be limited to 5-10 years growth only.
7. Problems should be converted at minimum cost to make projects cost-effective.
8. Building moratoriums should be first on the priority list.
9. Funds should be apportioned as follows:

Step 1	2%
Step 2	8%
Step 3	90%

Grand Ronde Sanitary District (8/4/80)

Advised that the project was ready to proceed with planning of the project.

City of Hubbard (no date)

Requested change of letter code D to C and rescheduling of Step 2 and 3 based on the city financing Step 1 at their own expense.

City of Milton-Freewater (7/31/80)

Expresses concern regarding the formulation of the Priority List, and particularly the manner in which the points are assigned via stream segment ranking formula. Opines that points assigned to the Walla Walla River Basin are in error.

Metropolitan Wastewater Management Commission (8/14/80)

1. Commented on problem of forecasting money available from grant funds.
2. Commented on segmenting of the MWMC project and priority points assigned to each segment.
3. Asked for consideration as to how valve engineering would be addressed in view of the \$10 million limit of segments.
4. Requested that seasonal industrial waste disposal be included on FY 81 list.
5. Suggested that economics should play a role in distribution of funds.

North Roseburg Sanitary District (8/4/80)

Requests that the North Roseburg Sanitary District be added to the priority list and considered for FY 81 funding if the Douglas County Metro project is bypassed.

City of Ontario (7/18/80)

Requested a Step 1 grant for reimbursement of prior Step 1 work and additional funds to update their facilities plan.

City of Portland (8/15/80)

Expressed concern over proposed inequitable distribution of grant funds.

1. Stated that the rating process assigned to MWMC sludge facilities compared with Portland's sludge project was inequitable because MWMC's sludge segment was recombined with the STP segment.
2. Recommended limiting the amount of funds for any one project to not more than 40% of the state's allotment in any given year.
3. Points out that a disproportionate amount of funds (\$40 million) are committed to MWMC without assurance that these funds plus the local share can effectively managed and spent before disbursement of the next allotment.
4. Portland SE Receiving Interceptor, Phase III, is ready for Step 3.

City of Prairie City (7/10/80)

Requested amendment of grant amounts for this project.

Rural Communities Assistance Program (8/1/80)

Proposed amending administrative rules to include:

1. 340-53-015
  - a. Legal name and address of applicant.
  - b. That portion of eligible cost to apply to alternative techniques.
  - c. That portion of eligible cost to apply to innovative techniques.
  - d. Indication that the project does or does not satisfy the enforceable requirements provision, including funding estimates for those portions which do not meet the enforceable requirements of the act. (Clean Water Act)
2. 340-53-020
  - a. Exception should be the collection system as defined for "Individual System" in 40 CFR 35.918.
3. Recommended that Step 2, Step 3 and Step 2 & 3 projects utilizing innovative and alternative processes and techniques receive higher priority in order to be in the fundable portion of the priority list.
4. Recommended that alternative systems for the fundable portion be funded from the general allotment rather than the small community reserves.

City of Toledo (7/24/80)

Requested to be placed on the priority list.

Tri-City/County (David Abraham 8/15/80)

Stated that rising construction cost, inflation, and decreasing levels of funding require a new direction from past policies and practices concerning the prioritizing criteria and management of the state's priority list. Does not believe the current criteria and list address the critical nature of the problem nor the sufficient direction to correct it. Specifically recommends:

1. Elimination of the transition policy.
2. Elimination of the combining of segments.
3. DEQ posed moratoriums should be placed in Project Class A.

Tri-City/County (Tom Tye 8/5/80)

Expressed desire to have the Tri-City project funded or the moratorium relaxed.

Tri-City/County (Homebuilders Association of Metropolitan Portland 8/1/80)

Requested higher ranking based on DEQ imposed moratorium to ensure construction funds.

Tri-City/County (City of West Linn 8/5/80)

Urged funding of the project.

Twin Rocks Sanitary District (Petition from group of property owners protesting proposed grant to upgrade the STP 7/28/80)

Petition proposes that the Twin Rocks effluent be diverted to Rockaway for treatment.

United Sewage Agency (7/17/80)

Offered suggestions on clarification of DEQ policies not directly related to the development of the priority criteria and list. Further requested that:

1. Criteria address the issue of maximum grant dollars/fiscal year to one grantee or one project.
2. A Step 2 for the Rock Creek interceptor be added to the list.
3. A review of the documentation on the North Plains project to determine if the priority should be raised.

Wauna-Westport Sewer Service District (Advisory Committee 7/80)

Provided a short history of the problems in the area and the progress in addressing these problems. Included an information sheet for a survey to determine local support for the project.

Wauna-Westport Sewer Service District (Mrs. Carol Reeves 7/24/80)

Requested reconsideration of Project Class from B to A.

WC242 (1) cs



EVALUATION OF TESTIMONY  
AND  
INFORMATION RECEIVED ON DRAFT PRIORITY LIST

EXHIBIT 1                   STAFF RESPONSE TO ORAL AND WRITTEN TESTIMONY

EXHIBIT 2                   STAFF CORRECTIONS TO DRAFT FY 81 LIST

EXHIBIT 3                   FY 81 POINT LIST DELETIONS AND ADDITIONS  
TO LIST

## EXHIBIT 1

STAFF RESPONSE TO ORAL AND WRITTEN TESTIMONY

1. BCVSA-Whetstone--Requested a change in Project Class and the addition of a Step 1.

Staff Response

A stream monitoring report made up of samples taken during March 1980 document evidence of substantial fecal coliform in Whetstone Creek. The report was forwarded to DEQ SW Region Office. The Region concluded that the documentation adequately supported the change. The project class was changed from D to B and a Step 1 added to the list.

2. BCVSA-Whetstone (Rogue Valley COG)--Recommended project class change from D to B for Step 1 only.

Staff Response

Project Class B was assigned based on Whetstone Creek monitoring report. Project class will be further evaluated during facilities planning.

3. City of Canby--Request to be placed on the priority list.

Staff Response

Documentation of any violations of the enforceable requirements of the Clean Water Act is not evident. The project appears to be an expansion for future population growth and an upgrade associated with the construction. Project was not added to the list.

4. Carmel-Foulweather S.D.--Requested higher priority.

Staff Response

Project reviewed by staff. In the absence of any new documentation of the scope and nature of the problem, it was decided that the project is properly prioritized.

5. Clackamas County-Rhododendron-Welches--DEQ NW Region provided bacteriological survey.

Staff Response

Based on a 1979 bacteriological survey by DEQ staff, the Rhododendron interceptor has been assigned project class B. In addition, the project has been scoped downward and now

consists of the Rhododendron interceptor, a shortened section of the original Welches interceptor and elimination of the golf club terrace STP.

6. City of Corvallis--Requested change in stream segment points.

Staff Response

Stream segment points are based on where the water quality problem is--not the ultimate destination of the discharge. In this case, Booneville Slough is identified and appropriately assigned 48 points on the FY 81 points list.

7. City of Cottage Grove--Recommended elimination of "transitioning" policy.

Staff Response

The staff is recommending in this agenda item that the "transitioning" policy remain in effect only through FY 81 and that this policy be dropped for FY 82 and beyond.

8. Charleston, S.D.--Wants state to certify District's collection system.

Staff Response

The Charleston S.D. District project consisted of an interceptor and collection system to serve the District.

In 1975, EPA funded construction of the Charleston S.D. interceptor/force main and six pump stations which serve Charleston, Barview, and parts of Coos Bay southwest of the existing Coos Bay STP No. 2. The commitment of federal funds to the project was with the understanding that local funds were available to fund the collection system since the state was not certifying any collection systems at that time.

After failing to pass a bond issue for \$2,300,000 late in 1974, the District voters approved a bond issue of \$585,000 early in 1975. Based on an estimated eligible cost of \$2,327,000 for the EPA portion of the project, the grant amount was \$1,745,000 with the District's share, \$58,900. It was understood at the time that because the bond issue would only provide the local share for the EPA portion of the project, that the District would make every effort to provide local share financing to complete an operable facility. We are not aware that the District has any good faith efforts to keep this commitment.

Because local financing has been difficult to arrange over the past few years, the Department has not pressed the District to complete the project. Since the Department is not currently funding collection systems, it is an obligation of the District to seek other sources of funding to complete the project as soon as possible.

6. City of Dallas--Requested elimination of I/I segment and addition of STP improvement segment.

Staff Response

Staff review of the project agreed with the revised definition of the project. Changes were entered.

7. City of Eagle Point--Requested review of priority assignment.
  1. Letter code is correctly assigned based on meeting effluent standards. Water quality problems in Little Butte Creek were not documented.
  2. Eagle Point is correctly assigned 120 points based on an involuntary moratorium.
  3. Stream segment points are correctly assigned based on Little Butte Creek. Ultimate destination is not a factor.
  4. Population emphasis points were changed as requested.
  5. This interceptor project is correctly assigned 8 points.
  
8. City of Eagle Point--General Comments.
  1. It is proposed that large projects be segmented in FY 82. Each project will be prioritized and limited to a grant of \$10 million although an applicant may have several projects. It is also proposed that transitioning will be dropped for FY 82 and projects funded at the 50 percent level if the law is changed to permit funding at this level.
  2. The state sets aside 4 percent of the state's allocation for alternative systems for small communities and 10 percent for Step 1 and 2 projects.
  3. Grant funds are not being used to separate combined sewers.
  4. 201 grant funds are only being used to minimize or eliminate surface or underground water pollution as required by law. This requirement may or may not meet Mr. Wiegand's definition of non-point sources.
  5. With the increase in population throughout the state and increased demands on public waters, it is not reasonable to expect a reduction in required levels of treatment.
  6. Limiting the funding of treatment capacity has been considered previously. With the present level of funding, only a few of the top projects will be under construction for the next few years. Therefore, there is little dollar advantage at this time to limiting funding to 5-10 years growth capacity. This Department does not, however, rule out this option for future consideration.

7. The Department and EPA make every effort to prevent "gold-plating" of any project. Projects will be monitored even more closely by the Corps of Engineers now that they have assumed delegation of the Step 3 activities.
8. A moratorium or connection limitation does not identify the scope and nature of a water quality problem but does identify the need for preventive pollution control action. Both of these receives 120 points in regulatory emphasis. They are exceeded only by documented public health hazards requiring immediate corrective action (130 points) and projects receiving limited time extension to meet the secondary treatment goals of the Clean Water Act (150 points). Therefore, the point assignment is appropriate. There isn't any requirement for moratorium projects to "wait" for federal assistance to solve their problems.
9. The state's allotment is broken down as follows:

Reserve for grant increases	10% (5% required)
Reserve for Step 1 and 2	10% (optional)
Reserve for alternative systems for small communities	4% (required)
Reserve for I/A technology	3% (required)
General Account	73%

9. Grande Ronde S.D.--Project ready to proceed.

Staff Response

The availability of funds will determine if Step 1 for this project can be funded this year.

10. City of Hubbard--Requested change of letter code from D to C and elimination of Step 1.

Staff Response

Staff review of monitoring reports and inspections supports the change to letter code C. Step 1 was dropped from the list.

11. City of Milton-Freewater--Walla Walla River Basin ranking is in error.

Staff Response

The city claims, as they have in the past, that the Walla Walla River Basin ranking is in error because it does not take in the full population of the basin. This is true only if the basin population includes population within the State of Washington. The Walla Walla Basin is not unique in this respect. The Klamath and Owyhee Basins also have significant out-of-state population and to a lesser extent, so do other basins. DEQ's present policy is to not cross the state line when counting population for any basin. The Department has responded to Mr. Loveland in past reports. However, a letter has been prepared addressing DEQ

policy on computing basin ranking.

12. Metropolitan Wastewater Management Commission--General Comments.

1. The problem of forecasting the availability of funds is appreciated at all levels of the program. Each year EPA provides a 5-year funding level for planning. This provides the basis for determining the fundable portion of the priority list. For FY 81-85, EPA provided the following:

FY 81	\$3.7 billion
FY 82	4.0
FY 83	4.4
FY 84	4.7
FY 85	5.0

Based on these expected budget authorizations, the projects are scheduled for funding in priority order when ready to proceed. There is no assurance that this level of funding will be available. Actual budget authorizations will most likely be less than planned causing further variations.

2. For FY 82, it is proposed that all projects components be prioritized separately. In addition, it is proposed that combining of components be eliminated. Under this policy each component will stand on its own in respect to:
  - a. Severity of the pollution problem
  - b. Existing population affected
  - c. Need for preservation of high quality water, and
  - d. Specific category of need.
3. Limiting projects to a \$10 million grant does not circumvent value engineering since it is not representative of the total cost of the project nor the total grant available to an applicant--the basis for determining the value engineering need.
4. The seasonal industrial waste component will be scheduled funding as requested.
5. Economic needs cannot be used as a criteria for disbursement of funds. Federal regulations specifically exclude the state from considering the project areas development needs not related to pollution abatement, the geographical region within the state, or future population growth projections for project rating criteria.

13. North Roseburg S.D.--Requested project be added to the FY 81 priority list.

Staff Response

The approved facilities plan identifies the Douglas County Metropolitan Project as the most cost-effective, environmentally

sound alternative. Bypassing of this project during FY 80 does not preclude implementation of the project during FY 81. However, should the grantee request that the project be dropped from the priority list because it is not implementable, other alternatives must be considered to solve the water quality problems in the area. At that time enforcement action will need to be considered and other construction possibilities will need to be examined for implementability.

14. City of Ontario--Requested funding to upgrade their facility plan.

Staff Response

The availability of funds will determine if a Step 1 for this project can be funded this year. The city should be advised that reimbursement for previous work is no longer possible under current federal regulations. The city must be prepared to repay the state loan from local funds.

15. City of Portland--General Comments.

1. For FY 82 it is proposed that project components be projects prioritized and funded individually. Additionally, it is proposed that combining of components be eliminated.
2. The reduced level of funding, inflation and increased construction costs have been the most disrupting factors to the state's program. It is proposed that projects be limited to \$10 million but there is not a proposal to limit any one jurisdiction. The Department feels that funding projects at the 50 percent level if the law permits would be a better way to fund more projects.
3. MWMC has adequate bonding approval from the voters to cover the local share. The staff's review of the project indicates project management services are adequate to effectively use the funds available for FY 81.
4. The Department is equally anxious to construct Segment III of the SE relieving interceptor. The staff will notify the city if funds become available.

16. City of Prairie City--Amendment of dollar amounts.

Staff Response

Dollar amounts have been changed as requested.

17. Rural Communities Assistance Program--General Comments.

1. The information requested to be placed on the priority list is too detailed and not directly pertinent. This information is contained in the grant information control system. All projects identified as small communities with alternative systems identified in the facilities plan are

asterisked on the priority list.

2. Individual systems conveying partially treated waste are not considered collection systems but part of the treatment chain and are eligible for state certification. The Department does not deem it necessary to restate this federal eligibility in the prioritizing criteria.
  3. Assigning a higher priority for small community projects using I/A processes and techniques is not necessary because the small community set-aside can be used in priority order without there being projects on the fundable portion of the list. Additionally, the criteria allows the Step 1 and 2 set-aside to be applied to the conventional treatment part of the project.
  4. In the absence of federal regulations specifying that small communities with alternative systems on the fundable portion be funded from the general allotment, the Department has reserved the option of funding from the general allotment or from the 4 percent set-aside. This policy provides us with the greatest flexibility in determining the funding source. The primary source will be the 4 percent set-aside because it is the most difficult to utilize.
18. City of Toledo--Requested to be placed on the priority list.

Staff Response

There is not adequate documentation of a water quality problem or violations of the enforcement requirements of the Act to justify adding this project to the list.

19. Tri-City/County--General Comments.
1. It is proposed that the "transition" policy not be in effect in developing the priority list for FY 82.
  2. It is also proposed that Segments not be combined in FY 82. Each segment will be prioritized and identified individually on the FY 82 priority list.
  3. A moratorium in itself does not identify the scope and nature of a water quality problem, but does identify the need for preventive pollution control action. A moratorium receives 120 regulatory emphasis points exceeded only by public health hazards and limited time extensions to meet the Clean Water Act. Project Class A is directly related to a certified public health hazard.
20. Tri-City/County--Mr. Tye requested the project to be funded or the moratorium relaxed.

Staff Response



The two requests cannot be considered jointly. The Department is anxious to see the project funded, but the decrease in the level of federal funds, increasing construction cost and inflation have delayed the initial anticipated funding date. The project will be funded as soon as funds become available. There isn't any requirement for moratorium projects to "wait" for federal assistance to solve their problems.

21. Tri-City/County--Home Builders Association requested higher ranking.

Staff Response

The project is appropriately ranked according to proposed ranking criteria.

22. Tri-City/County--West Linn urged funding of the project.

Staff Response

The Department will fund the project as soon as funds become available.

23. Twin Rocks S.D.--Proposed elimination of the grant to upgrade the Twin Rocks S.D.

Staff Response

Diverting the District's sewer flows to the City of Rockaway may be appropriate if the District property owners have annexed to the city. The state will not certify a grant to upgrade the Twin Rocks S.D. plant until this alternative has been considered.

24. United Sewerage Agency--General Comments.

Staff Response

1. The Department has declined to limit the grant dollars/fiscal year to one grantee or project as a means of funding more projects for FY 81. Instead, the Department has elected to fund projects at the 50 percent level if the law is changed to permit this action.
2. A Step 2 for the USA Rock Creek interceptor has been added to the list.
3. Based on a survey conducted by DEQ in April 1980, the USA-North Plains project has been assigned letter code D.

25. Wauna-Westport Sewer Service District--Requested reconsideration of project class.

Staff Response

Communications from the Citizens Advisory Committee and Mrs. Carol Reeves requested the project be assigned letter class

A based on the threat to public health. Assignment of letter class A requires the administrator of the Health Division or the EQC to certify findings of fact that water pollution of beneficial use impairment exists and that there is a hazard to public health. It is the degree of the threat to public health which is in question here. Without field investigations, public notice and hearing and written findings of fact to document the public health hazard, the presently assigned letter code of B is correct.

WC242.A(1)c

## EXHIBIT 2

## STAFF CORRECTIONS TO THE DRAFT FY 81 LIST

The priority point scores for the following projects were changed from the FY 80 priority list to reflect more recent information:

<u>Project</u>	Ranking <u>Category</u>	<u>Change</u>	Reason for <u>Change</u>
BCVSA/Whetstone	Project Class Stream Segment	D to B 83.50 to 46.00	Water Sampling Corrected Stream
Dallas/City	Project Type	7 to 10	Add. of STP
Eagle Point/City	Pop. Emphasis	6.80 to 6.87	Revised Pop.
Hubbard/City	Project Class	D to C	New Information
USA/North Plains	Project Class	E to D	New Information

NOTE: Changes were made in project components or segments for many projects. All "Est. Grant Amounts" were updated.

WL261 (1)

## EXHIBIT 3

## PROJECTS DELETED

The following projects which appear on the FY 80 priority list were not included on the FY 81 priority list.

<u>PROJECT NUMBER</u>	<u>PROJECT NAME</u>	<u>REASON FOR DELETION</u>
475	La Grande/Island City	Awarded
476	Geruias/City	Awarded
559	Lincoln/City	Certified
517	Hermiston/City	Awarded
523	St. Paul/City	Certified
527	BCVSA/Westside	Certified
430	Dayton/City	Awarded
652	BCVSA/Jacksonville	Certified
558	BCVSA/White City	Certified
545	Prineville/Loughlin	Bypassed 2nd time
532	Tillamook/Hwy 101 S.D.	Need not identified
605	Portland/Elk Rock	Constructed locally

WC259 (1) c1  
9/4/80

## MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS FISCAL YEAR 1981 PRIORITY LIST

Federal regulations governing the Federal Municipal Wastewater Treatments Work Construction Grants Program require that such grants be awarded from an approved statewide priority list. This FY 81 priority list is intended to satisfy those requirements and was developed based on ORS 340-53-005, Development and Management of the Statewide Sewerage Works Construction Grants Priority List. The priority list includes all known projects potentially eligible for a grant along with documentation including estimated grant amount and target certification date. When estimating certification dates a number of assumptions were made.

- Grant funds available, based on EPA guidance, will be as follows:

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985 and Beyond</u>
National (billion \$)	3.7	4.0	4.4	4.7	5.0
Total Oregon (million \$)	48	52	57	61	65
General Allotment (million \$)	35	39	43	46	49

- Cost estimates have not been adjusted to account for inflation when delayed beyond the ready to proceed date.
- Step 1 and 2, and Small Community Alternative projects may be funded from applicable special reserves.
- In FY 82 and beyond, all projects and project components will be reranked and scheduled according to their priority point score. Projects or components not awarded by October 1, 1981 will no longer maintain a transition status.

Federal funds available, project costs, and grant amounts are estimates only and will be updated annually with corresponding revisions in target certification dates. Thus, projects identified for potential funding in FY 82 and beyond may be further delayed when next year's list is prepared.

PROJECTS CERTIFIED FROM 1979 OR 1980 FUNDS

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	EST. GRANT AMOUNT	PRIORITY POINTS
T	355	CORVALLIS / CITY	SLUDGE	3	To be awarded from FY 80 Funds			804	
T	486	BEND / CITY	STP	3		"		255	
		/ SOUTHEAST	TEMP EFF. DISP.	3		"		750	
		/ NORTHWEST	INT/COLL	3		"		1,900	
			INT/COLL	3		"		1,575	
T	62W	MWMC / EAST BANK	INT	3				12,889	
		/ REGIONAL	STP	2	1 of 2	"		908	
				3	1 of 6	"		5,850	
			SLUDGE	2	1 of 2	"		53	
				3	1 of 4	"		330	
			PUMP STA. #1	2	1 of 2	"		115	
T	557	PORTLAND / CITY	SL GAS.UT	2	2 of 2	"		290	
			SL DISP	2		"		437	
T	475	LA GRANDE / ISL CITY	INT	3		"		976	
T	476	GERVALS / CITY	STP/INT	3		"		492	
T	559	LINCOLN CITY / CITY	INT	3		"		1,582	
T	517	HERMISTON / CITY	INT	3		"		2,218	
T	523	ST. PAUL / CITY	SYSTEM	3		"		640*	
T	527	BCVSA / WESTSIDE	INT	3		"		921	
T	430	DAYTON / CITY	STP IMP	3		"		464	
T	652	BCVSA / JACKSONVILLE	INT	3		"		314	
T	558	BCVSA / WHITE CITY	REHAB	3		"		869	

\*Small Community Utilizing Alternative System

Note: All estimated grant amounts in thousands of dollars

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	EST. GRANT AMOUNT	PRIORITY POINTS
T	486	BEND / CITY	EFF DISP.	3		FY 82	FY 82	1,500	A227.97
T	624	MWC / REGIONAL	STP	2	2 of 2	FY 80	11/80	185	B261.51
				3					
					2 of 6	FY 80	4/81	6,200	
					3 of 6	FY 80	4/81	8,600	
					4 of 6	FY 80	4/81	6,020	
					5 of 6	FY 80	FY 82	2,300	
					6 of 6	FY 81	FY 82	4,700	
			PUMP STA # 1	2	2 of 2	FY 81	12/80	75	B198.61
				3	1 of 2	FY 81	3/81	875	
					2 of 2	FY 81	FY 82	7,000	
			SLUDGE	2	2 of 2	FY 82	6/81	400	C201.51
				3	2 of 4	FY 81	8/81	700	
					3 of 4	FY 83	FY 85	7,000	
					4 of 4	FY 83	FY 85	3,600	
			PUMP STA # 2	2			3/81	288	C197.70
				3		FY 82	FY 85	4,000	
		/ EUGENE	REHAB	2		FY 81	11/80	150	C200.21
				3		FY 81	6/81	2,300	
		/ SPRINGFIELD	REHAB	2		FY 81	11/80	100	C199.43
				3	1 of 2	FY 81	6/81	1,500	
					2 of 2	FY 81	FY 85	1,900	
		/ AGRIPAC	EFF. DISP.	2		FY 81	11/80	246	C196.58
				3	1 of 2	FY 80	11/80	390	
					2 of	FY 81	3/81	5,610	
T	557	PORTLAND / CITY	SL. GAS U.	3		FY 81	FY 86	2,700	C159.40
			SL. DISP.	3		FY 81	FY 86	7,300	

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
T	616	<sup>/1</sup> ROSEBURG / CITY	REHAB	3		FY 82	FY 84	1,700	B184.84
T	342	PORTLAND / SE REL.	INT	3	3 of 4 4 of 4	FY 79 FY 79	FY 85 FY 85	8,500 3,000	C201.85
1	622	PORTLAND / SW 45TH	INT	3		FY 80	FY 82	400	A237.29
2	664	ALBANY / DRAPERVILLE	INT/COLL	2 3		FY 80 FY 81	FY 81 FY 82	320 1,800	A232.74
3	464	TERREBONNE / TOWN	SYSTEM	1 2 3		FY 81 FY 82 FY 83	FY 81 FY 82 FY 83	38 190 560	A224.45
4	627	MEDFORD / FOOTHILLS	INT/COLL	3		FY 81	FY 82	430	A223.66
5	467	SILVERTON / NORWAY / CITY	INT/COLL STP IMP REHAB	3 3 3		FY 81 FY 81 FY 81	FY 82 FY 82 FY 82	620 2,300 180	A222.25
6	560	<sup>/1</sup> ROSEBURG / RIFLE RANGE	INT/COLL	3		FY 81	FY 82	210	A217.68
7	579	MADRAS / FRINGE	INT/COLL	2 3		FY 81 FY 82	FY 81 FY 82	230 2,100	A208.40
8	516	K FALLS / STEWART-LEN	INT/COLL	3		FY 83	FY 82	2,100	A208.00
9	665	CORVALLIS / SW ANNEX	INT/COLL	2 3		FY 81 FY 81	FY 81 FY 82	26 500	A200.96
10	569	MONROE / NORTH / CITY	INT/COLL STP EXP REHAB	3 3 3		FY 81 FY 81 FY 81	FY 82 FY 82 FY 82	91 69 350	A194.51
11	502	HAMMOND (WRNTN) / CITY	FPR	1		FY 80	FY 81	84	A184.97

<sup>/1</sup>

Although included on the priority list, this project is not presently eligible for funding because of lack of a qualified applicant.



MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
12	521	COTTAGE GROVE / CITY	STP IMP	3		FY 81	FY 82	2,900	B240.74
			REHAB	3		FY 81	FY 82	190	
			INT	3		FY 81	FY 82	90	
			I/I CORR	3		FY 81	FY 82	190	
13	493	TRI-CITY CO. / REGIONAL	STP	2		FY 80	FY 81	1,300	B232.55
				3	1 of 4	FY 81	FY 82	5,200	
					2 of 4	FY 82	FY 83	8,400	
					3 of 4	FY 83	FY 84	7,500	
					4 of 4	FY 83	FY 84	4,300	
			REHAB	2		FY 80	FY 81	43	
				3		FY 81	FY 82	1,100	
			INT/P STA	2		FY 80	FY 81	750	
				3	1 of 2	FY 81	FY 82	4,600	
					2 of 2	FY 82	FY 83	4,000	
	604	/ KELLOGG	SLUDGE	2		FY 81	FY 81	340	
				3		FY 82	FY 82	1,300	
14	611	USA / ROCK CR	INT	2	1 of 2	FY 80	FY 81	10	B231.63
					2 of 2	FY 80	FY 81	130	
				3	1 of 3	FY 81	FY 82	130	
					2 of 3	FY 81	FY 82	570	
					3 of 3	FY 81	FY 82	1,100	
15	493	TRI-CITY CO. / REGIONAL	I/I CORR	2		FY 80	FY 81	4	B228.78
				3		FY 81	FY 82	100	
16	431	BAKER / CITY	STP IMP	2		FY 80	FY 81	500	B216.87
				3		FY 81	FY 83	3,500	
17	681	SEASIDE / CITY	STP IMP	2		FY 80	FY 82	410	B213.68
				3		FY 81	FY 83	4,500	
			REHAB	2		FY 80	FY 82	80	
				3		FY 81	FY 83	870	

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	EST. GRANT AMOUNT	PRIORITY POINTS
18	487	<sup>/2</sup> DOUGLAS CO. / METRO	STP	2		FY 82	FY 82	650	B213.54
				3	1 of 2	FY 83	FY 83	5,700	
					2 of 2	FY 83	FY 84	3,300	
		/ NORTH BANK	INT	2		FY 82	FY 82	45	
				3		FY 83	FY 83	3,500	
19	445	DONALD / CITY	SYSTEM	3		FY 81	12/80	1,300*	B212.95
20	646	SALEM / CITY	FPR	1	1 of 2	FY 80	FY 81	450	B203.36
					2 of 2	FY 81	FY 82	300	
21	494	NEWBERG / CITY	STP IMP	2		FY 80	FY 82	360	B201.57
				3		FY 81	FY 83	3,300	
				2	REHAB	FY 80	FY 82	65	
				3		FY 81	FY 83	590	
22	682	USA / HILLSBORO	INT	1		FY 80	FY 81	94	B200.33
				2		FY 81	FY 82	170	
				3		FY 82	FY 83	1,700	
23	494	NEWBERG / CITY	I/I CORR	2		FY 80	FY 83	46	B198.57
				3		FY 81	FY 84	420	
24	642	GRAND RONDE / AREA	SYSTEM	1		FY 80	FY 81	23	B194.02
				2		FY 81	FY 83	54	
				3		FY 81	FY 84	840	
25	426	MULTI CO. / INVERNESS	INT	2		FY 80	FY 83	580	B192.89
				3		FY 81	FY 84	2,300	
	653	/ EAST CONSOR.	FPR	1		FY 80	FY 81	220	
26	567	HAPPY VALLEY / CITY	INT	2		FY 81	FY 83	110	B190.32
				3		FY 82	FY 84	2,600	

<sup>/2</sup>  
A request has been received to remove the Douglas County project from the priority list. It is being retained, however, to indicate the continuing need for grant funds in the area but not to suggest that Douglas County will be the applicant, or to limit options for meeting the area's need.

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
27	628	COOS BAY / CITY NO. 1	STP IMP	1		FY 80	FY 81	85	B187.91
				2		FY 81	FY 83	240	
				3		FY 82	FY 84	1,000	
28	467	SILVERTON / CITY	INTS	3		FY 81	FY 84	1,300	B187.57
29	592	DALLAS / CITY	REHAB	2		FY 80	FY 83	29	B170.82
				3		FY 81	FY 84	160	
30	638	CLATSOP PLAINS / AREA	INT	2		FY 81	FY 83	170	B170.49
				3		FY 82	FY 84	2,100	
31	449	FALLS CITY / CITY	SYSTEM	1		FY 80	FY 81	40	B167.52
				2		FY 80	FY 83	190	
				3		FY 81	FY 84	940	
32	639	COVE ORCHARD / AREA	SYSTEM	2		FY 80	12/80	30*	B152.08
				3		FY 81	FY 82	250	
33	629	DRAIN / CITY	STP IMP	1		FY 80	FY 81	51	B150.23
				2		FY 80	FY 83	200	
				3		FY 81	FY 84	2,600	
34	607	BCVSA / WHEATSTONE	INT	1		FY 80	FY 81	65	B149.60
				2		FY 81	FY 84	180	
				3		FY 82	FY 85	1,000	
35	437	WAUNA-WESTPORT / SAN. DIST.	SYSTEM	2		FY 81	12/80	140*	B143.69
				3		FY 81	FY 82	830	
36	526	CLACKAMAS CO. / RHODO-WLCH	INTS	3		FY 81	FY 84	890	B142.15
37	537	SW LINCOLN / SAN. DIST.	SYSTEM	1		FY 79	FY 81	61	B138.62
				2		FY 80	FY 83	320	
				3		FY 81	FY 84	1,900	
38	619	ASTORIA / WILLIAMSPT	INT	2/3		FY 79	FY 84	800	B138.60

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	EST. GRANT AMOUNT	PRIORITY POINTS
39	592	DALLAS / CITY	STP IMP	2		FY 80	FY 83	130	B131.82
				3		FY 81	FY 84	1,440	
40	583	IONE / CITY	SYSTEM	2		FY 80	FY 83	65	B125.27
				3		FY 81	FY 84	420	
41	588	MT. ANGEL / CITY	STP IMP	2		FY 80	FY 83	22	C248.92
				3		FY 81	FY 84	240	
			I/I CORR	2		FY 80	FY 83	7	
				3		FY 81	FY 84	76	
42	667	S. SUBURBAN / SAN. DIST.	STP IMP	2	1 of 2	FY 80	FY 82	70	C234.53
					2 of 2	FY 80	FY 83	440	
				3		FY 81	FY 84	6,900	
43	565	STANFIELD / CITY	STP EXP	2		FY 81	FY 83	70	C233.59
				3		FY 82	FY 84	900	
			I/I CORR	2		FY 81	FY 83	7	
				3		FY 82	FY 84	85	
44	472	ELGIN / CITY	STP IMP	2		FY 80	FY 83	71	C227.81
				3		FY 81	FY 84	580	
45	472	ELGIN / CITY	I/I CORR	2		FY 80	FY 84	10	C224.81
				3		FY 81	FY 85	100	
46	615	CARLTON / CITY	STP IMP	2		FY 79	FY 84	47	C222.93
				3		FY 80	FY 85	870	
47	515	SCIO / CITY	STP IMP	2		FY 81	FY 84	46	C215.75
				3		FY 82	FY 85	480	
48	499	PRAIRIE CITY / CITY	STP IMP	3		FY 81	FY 81	950*	C211.10
				INT	3	1 of 2	FY 81	FY 81	
49	631	VERNONIA / CITY	STP IMP	1		FY 80	FY 81	45	C205.06
				2		FY 81	FY 84	78	
				3		FY 81	FY 85	700	

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
50	511	CANNON BEACH / CITY	STP IMP	2		FY 81	08/81	160*	C204.08
				3		FY 81	FY 82	890	
51	655	PORTLAND / CO. BLVD. REL.	INT	1		FY 80	FY 81	33	C202.05
				2		FY 80	FY 84	130	
				3		FY 81	FY 85	1,800	
52	677	USA / CEDAR MILL	INT	2		FY 80	FY 84	85	C199.73
				3		FY 81	FY 85	660	
53	575	USA / GASTON	INT	2		FY 80	FY 84	83	C197.73
				3		FY 81	FY 85	910	
54	513	CRESSWELL / CITY	STP IMP	2		FY 80	FY 84	77	C197.69
				3		FY 81	FY 85	970	
			INT	2		FY 80	FY 84	45	
				3		FY 81	FY 85	160	
55	506	SHERIDAN / CITY	REHAB	2		FY 80	FY 84	30	C194.62
				3		FY 81	FY 85	500	
56	668	CORVALLIS / CITY	CSO	1		FY 80	FY 81	83	C192.66
				2		FY 81	FY 84	400	
				3		FY 81	FY 85	2,600	
57	615	CARLTON / CITY	I/I CORR	2		FY 79	FY 84	15	C189.93
				3		FY 80	FY 85	110	
58	554	ENTERPRISE / CITY	STP IMP	2		FY 80	FY 84	76	C181.27
				3		FY 81	FY 85	230	
			I/I CORR	2		FY 80	FY 84	6	
				3		FY 81	FY 85	72	
59	429	EAGLE POINT / CITY	INT	2		FY 80	FY 84	42	C180.87
				3		FY 81	FY 85	620	

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
60	514	OAKRIDGE / CITY	STP IMP	2		FY 80	FY 84	80	C178.00
				3		FY 81	FY 85	950	
			REHAB	2		FY 80	FY 84	12	
				3		FY 81	FY 85	140	
61	573	LOWELL / CITY	STP IMP	2		FY 80	FY 84	40	176.42
				3		FY 81	FY 85	1,000	
			REHAB	2		FY 80	FY 84	10	
				3		FY 81	FY 85	200	
62	514	OAKRIDGE / CITY	I/I CORR	2		FY 80	FY 84	10	C175.00
				3		FY 81	FY 85	100	
63	594	ESTACADA	STP IMP	2		FY 80	FY 84	170	C174.61
				3		FY 81	FY 85	740	
			I/I CORR	2		FY 80	FY 84	4	
				3		FY 81	FY 85	65	
64	516	K FALLS REGIONAL	STP EXP	2		FY 80	FY 84	170	C174.52
				3		FY 81	FY 85	560	
			I/I CORR	2		FY 80	FY 84	53	
				3		FY 81	FY 85	300	
65	573	LOWELL / CITY	I/I CORR	2		FY 80	FY 84	15	C173.42
				3		FY 81	FY 85	120	
66	661	GRANTS PASS / CITY	STP IMP	1		FY 80	FY 81	25	C167.70
				2		FY 81	FY 84	60	
				3		FY 82	FY 85	460	
67	620	PHILOMATH / CITY	STP IMP	1		FY 80	FY 81	22	C166.12
				2		FY 81	FY 84	69	
				3		FY 82	FY 85	640	
68	533	FLORENCE / CITY	STP IMP	2		FY 81	FY 84	120	C159.48
				3		FY 82	FY 85	2,500	
			REHAB	2		FY 81	FY 84	60	
				3		FY 82	FY 85	210	

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
69	576	USA / BANKS	INT	2		FY 80	FY 85	150	C151.31
				3		FY 81	FY 86	1,400	
70	617	OAKLAND / CITY	STP IMP	2		FY 80	FY 85	62	C150.09
				3		FY 81	FY 86	330	
71	643	HUBBARD / CITY	STP IMP	2		FY 81	FY 85	380	C148.44
				3		FY 82	FY 86	2,300	
72	672	BROOKINGS / CITY	STP IMP	1		FY 80	FY 81	45	C147.09
				2		FY 80	FY 85	100	
				3		FY 81	FY 86	850	
73	539	ST. HELENS / CITY	STP IMP	2		FY 81	FY 85	660	C145.82
				3		FY 82	FY 86	4,000	
					I/I CORR	2		FY 81	
				3		FY 82	FY 86	1,125	
74	586	RAINIER / CITY	REHAB	2		FY 80	FY 85	260	C141.61
				3		FY 81	FY 86	1,500	
75	648	HEPPNER / CITY	STP IMP	1		FY 80	FY 81	29	C140.48
				2		FY 80	FY 85	300	
				3		FY 80	FY 86	1,100	
76	618	NEWPORT / CITY	STP IMP	2		FY 80	FY 85	110	C139.71
				3		FY 81	FY 86	2,200	
					I/I CORR	2		FY 80	
				3		FY 81	FY 86	88	
77	469	MODOC PT. / AREA	SYSTEM	1		FY 80	FY 81	28	C139.40
				2		FY 81	FY 85	61	
				3		FY 81	FY 86	430	
78	473	DUFUR / CITY	STP IMP	2		FY 80	FY 85	47	C135.56
				3		FY 81	FY 86	310	
					I/I CORR	2		FY 80	
				3		FY 81	FY 86	53	

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
79	519	JOSEPH / CITY	STP IMP	2		FY 80	FY 85	83	C133.96
				3		FY 81	FY 86	350	
80	518	ONTARIO / CITY	STP IMP	2		FY 80	FY 85	180	C133.90
				3		FY 81	FY 86	720	
81	572	THE DALLES / FOLEY LAKES	INT	2/3		FY 81	FY 86	510	C131.75
82	651	FOSSIL / CITY	STP IMP	1		FY 80	FY 81	20	C125.63
				2		FY 81	FY 85	290	
				3		FY 81	FY 86	1,100	
83	651	MILTON-FREWIR / CITY	STP IMP	2		FY 80	FY 85	290	C125.33
				3		FY 81	FY 86	1,500	
			INT	2		FY 80	FY 85	12	
				3		FY 81	FY 86	78	
84	595	HALSEY / CITY	STP IMP	1		FY 80	FY 81	39	C113.72
				2		FY 81	FY 85	68	
				3		FY 81	FY 86	950	
85	635	ATHENA / CITY	STP IMP	1		FY 80	FY 81	17	C100.00
				2		FY 81	FY 85	170	
				3		FY 81	FY 86	750	
86	522	USA / N. PLAINS	INT	1		FY 80	FY 82	28	
				2		FY 80	FY 85	120	D197.63
				3		FY 81	FY 86	700	
87	582	IRRIGON / CITY	SYSTEM	2		FY 81	12/81	80*	D196.09
				3		FY 81	FY 82	1,100	
88	506	SHERIDAN / WEST AREA	INT	2/3		FY 80	FY 86	500	D189.51
89	670	TRI CITY / MYRTLE CR	STP IMP	1		FY 80	FY 82	57	D 184.89
				2		FY 81	FY 85	97	
				3		FY 82	FY 86	790	



MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
90	673	WINSTON-GR / LANDERS LANE	INT	1 2/3		FY 80 FY 80	FY 82 FY 86	10 160	D177.56
91	674	BORING / AREA	SYSTEM	1 2 3		FY 80 FY 85 FY 86	FY 82 FY 85 FY 86	35 72 410	D173.85
92	516	K FALLS / PELICAN CITY	INT	2/3		FY 80	FY 86	560	D167.91
93	592	DALLAS / NORTHEAST	INT	2/3		FY 81	FY 86	940	D165.47
94	634	USA / DURHAM	SLUDGE	3		FY 80	FY 86	6,900	D163.89
95	662	SODAVILLE / CITY	SYSTEM	1 2 3		FY 80 FY 81 FY 82	FY 82 FY 85 FY 86	21 46 510	D161.65
96	662	N. POWDER / CITY	STP IMP	2 3		FY 80 FY 81	FY 85 FY 86	37 89	D154.29
97	675	WALLOWA / CITY	STP IMP	1 2 3		FY 80 FY 81 FY 81	FY 82 FY 85 FY 86	17 120 500	D150.66
98	597	YONCALLA / CITY	STP IMP	1 2 3		FY 80 FY 81 FY 81	FY 82 FY 85 FY 86	29 52 630	D149.86
99	541	SISTERS / CITY	SYSTEM	2 3		FY 80 FY 81	11/80 FY 82	220* 1,600	D147.81
100	617	OAKLAND / UNION GAP	INT	2/3		FY 80	FY 86	110	D144.56
101	649	CAMAS VALLEY / AREA	SYSTEM	1 2 3		FY 80 FY 81 FY 81	FY 82 FY 85 FY 86	9 25 100	D144.35
102	602	NESKOWIN / SAN. AUTH.	SYSTEM	2 3		FY 81 FY 82	01/81 FY 82	190* 1,800	D142.80

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	EST. GRANT AMOUNT	PRIORITY POINTS
103	447	MILL CITY / CITY	SYSTEM	1		FY 80	FY 82	25	D141.73
				2		FY 81	FY 85	54	
				3		FY 81	FY 86	770	
104	536	LAPINE / TOWN	SYSTEM	1		FY 80	FY 82	50	D129.95
				2		FY 81	FY 85	250	
				3		FY 81	FY 86	740	
105	456	MERLIN / COLONIAL VALLEY	SYSTEM	1		FY 80	FY 82	19	D126.71
				2		FY 81	FY 85	62	
				3		FY 81	FY 86	770	
106	496	JUNCTION CITY / CITY	STP IMP	2		FY 80	FY 85	68	D108.13
				3		FY 81	FY 86	850	
107	443	TURNER / CITY	SYSTEM	1		FY 80	FY 82	17	D107.30
				2		FY 81	FY 85	330	
				3		FY 81	FY 86	990	
108	499	PRAIRIE CITY / CITY	INT	3	2 of 2	FY 81	FY 86	90	D107.10
109	521	ALBANY / NORTH AREA	INT	1		FY 81	FY 85	80	D105.34
				2/3		FY 82	FY 86	1,100	
110	671	PILOT ROCK / CITY	STP IMP	1		FY 80	FY 82	15	D100.50
				2		FY 81	FY 85	300	
				3		FY 81	FY 86	900	
111	645	PRINEVILLE / CITY	STP IMP	2		FY 80	FY 86	62	D97.06
				3		FY 81	FY 87	670	
112	442	MAPLETON / AREA	SYSTEM	1		FY 80	FY 82	42	D67.83
				2		FY 81	FY 86	83	
				3		FY 81	FY 87	780	
113	458	CORVALLIS / AIRPORT	STP EXP	2		FY 80	FY 86	54	E183.09
				3		FY 81	FY 87	500	

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
114	660	VENETA / CITY	STP EXP	1		FY 80	FY 82	20	E161.42
				2		FY 81	FY 86	42	
				3		FY 81	FY 87	560	
115	542	CARMEL FOUL / SAN. DIST.	SYSTEM	2		FY 80	FY 86	110	E144.00
				3		FY 81	FY 87	740	
116	647	TWIN ROCKS / SAN. DIST.	STP EXP	2		FY 80	FY 86	83	E143.63
				3		FY 81	FY 87	330	
117	516	K FALLS / RIVERSIDE	INT	2/3		FY 80	FY 87	1,100	E127.81
118	601	WALLOWA LAKE / SAN. AUTH.	SYSTEM	1		FY 80	FY 82	11	E110.67
				2		FY 81	FY 86	38	
				3		FY 81	FY 87	450	
119	676	ADAIR-VILL / CITY	STP IMP	1		FY 80	FY 82	15	E106.66
				2		FY 81	FY 86	30	
				3		FY 81	FY 87	370	
120	637	BROOKS / AREA	SYSTEM	1		FY 80	FY 82	15	E105.78
				2		FY 81	FY 86	340	
				3		FY 81	FY 87	2,300	
121	613	USA / REEDSVILLE	INT	2		FY 80	FY 86	110	E105.48
				3		FY 81	FY 87	600	
122	610	USA / SUNSET	INT	2		FY 80	FY 86	90	E104.08
				3		FY 81	FY 87	510	
123	460	ALBANY / NE KNOXBUTTE	INT	1		FY 80	FY 82	50	E102.27
				2		FY 81	FY 86	130	
				3		FY 81	FY 87	750	
124	540	MERRILL / CITY	STP EXP	1		FY 80	FY 82	21	E91.91
				2		FY 81	FY 86	66	
				3		FY 81	FY 87	740	

MUNICIPAL WASTE WATER WORKS CONSTRUCTION GRANTS, FISCAL YEAR 1981 PRIORITY LIST  
EST.

PROJECT RANK	PROJECT NO.	PROJECT NAME	COMPONENT	STEP	SEGMENT	READY TO PROCEED	TARGET CERT.	GRANT AMOUNT	PRIORITY POINTS
125	678	LYONS-MEHAMA / REGIONAL	SYSTEM	1		FY 80	FY 82	29	E91.48
				2		FY 81	FY 86	54	
				3		FY 81	FY 87	620	
126	644	ODEL / SAN. DIST.	STP EXP	1		FY 80	FY 82	21	E91.16
				2		FY 81	FY 86	66	
				3		FY 81	FY 87	740	
127	477	DETROIT / CITY	SYSTEM	1		FY 80	FY 82	15	E90.85
				2		FY 81	FY 86	60	
				3		FY 81	FY 87	430	
128	679	IDANEA / CITY	SYSTEM	1		FY 80	FY 82	15	E90.41
				2		FY 81	FY 86	75	
				3		FY 81	FY 87	640	
129	680	GATES / CITY	SYSTEM	1		FY 80	FY 82	15	E90.22
				2		FY 81	FY 86	60	
				3		FY 81	FY 87	540	
130	551	SANDY / CITY	STP EXP	1		FY 80	FY 82	18	E85.36
				2		FY 81	FY 86	51	
				3		FY 81	FY 87	1,040	
131	471	TANGENT	SYSTEM	1		FY 80	FY 82	15	E72.54
				2		FY 81	FY 86	130	
				3		FY 81	FY 87	1,300	
132	663	SCAPPOOSE / CITY	STP IMP	1		FY 80	FY 82	33	E65.00
				2		FY 81	FY 86	83	
				3		FY 81	FY 87	840	
133	546	CRESCENT / SAN. DIST.	SYSTEM	1		FY 80	FY 82	15	E56.08
				2		FY 81	FY 86	70	
				3		FY 81	FY 87	620	

RTE:b

WF96

September 5, 1980

MUNICIPAL WASTE WATER TREATMENT WORKS  
CONSTRUCTION GRANTS PROGRAM

DIVISION 53

Development and Management of The Statewide  
Sewerage Works Construction Grants Priority List

Purpose

340-53-005 The purpose of these rules is to prescribe procedures and priority criteria to be used by the Department for development and management of a statewide priority list of sewerage works construction projects potentially eligible for financial assistance from U.S. Environmental Protection Agency's Municipal Waste Water Treatment Works Construction Grants Program, Sec. 201, P.L. 95-217.

Definitions

340-53-010 As used in these regulations unless otherwise required by context:

(1) "Department" means Department of Environmental Quality. Department actions shall be taken by the Director as defined herein.

(2) "Commission" means Environmental Quality Commission.

(3) "Director" means Director of the Department of Environmental Quality or his authorized representatives.

(4) "Municipality" means any county, city, special service district, or other governmental entity having authority to dispose of sewage, industrial waste, or other wastes, any Indian tribe or authorized Indian Tribal Organization or any combination of two or more of the foregoing.

(5) "EPA" means U.S. Environmental Protection Agency.

(6) "Treatment Works" means any facility for the purpose of treating, neutralizing or stabilizing sewage or industrial wastes of a liquid nature, including treatment or disposal plants, the necessary intercepting, outfall and outlet sewers, pumping stations integral to such plants or sewers, equipment and furnishings thereof and their appurtenances.

(7) "Grant" means financial assistance from the U.S. Environmental Protection Agency Municipal Waste Water Treatment Works Construction Grants Programs as authorized by Sec. 201, P.L. 95-217 and subsequent amendments.

(8) "Project" means a potentially fundable entry on the priority list consisting of Step 1, Step 2, or Step 3, of treatment works or components or segments of treatment works as further described in Section 340-53-015, Subsection (4).

(9) "Treatment Works Component" means a portion of an operable treatment works described in an approved facility plan including but not limited to:

- (a) Sewage treatment plant
- (b) Interceptors
- (c) Sludge disposal or management
- (d) Rehabilitation
- (e) Other identified facilities.

A treatment works component may but need not result in an operable treatment works.

(10) "Treatment Works Segment" means a portion of a treatment works component which can be identified in a contract or discrete sub-item of a contract and may but need not result in operable treatment works.

(11) "Priority List" means all projects in the state potentially eligible for grants listed in rank order.

(12) "Fundable portion of the list" means those projects on the priority list which are planned for grant award during the current funding year. The fundable portion of the list shall not exceed the total funds expected to be available during the current funding year less applicable reserves.

(13) "Facilities Planning" means necessary plans and studies which directly relate to the construction of treatment works. Facilities planning will demonstrate the need for the proposed facilities and that they are cost-effective and environmentally acceptable.

(14) "Step 1 Project" means any project for development of a facilities plan for treatment works.

(15) "Step 2 Project" means any project for engineering design of all or a portion of treatment works.

(16) "Step 3 Project" means any project for construction or rehabilitation of all or a portion of treatment works.

(17) "Eligible Project Costs" means those costs which could be eligible for a grant according to EPA regulations and certified by the Department and awarded by EPA.

(18) "Innovative Technology" means treatment works utilizing conventional or alternative technology not fully proven under conditions contemplated but offering cost or energy savings or other advantages as recognized by federal regulations.

(19) "Alternative Technology" means treatment work or components or segments thereof which reclaim or reuse water, recycle waste water constituents, eliminate discharge of pollutants, or recover energy.

(20) "Alternative system for small communities" means treatment works for municipalities or portions of municipalities having a population of less than 3,500 and utilizing alternative technology as described above.

(21) "Funding Year" means a federal fiscal year commencing October 1st and ending September 30th.

(22) "Current Funding Year" means the funding year for which the priority list is adopted.

(23) "State Certification" means assurance by the Department that the project is acceptable to the state and that funds are available from the state's allocation to make a grant award.

#### Priority List Development

340-53-015 The Department will develop a statewide priority list of projects potentially eligible for a grant.

(1) The statewide priority list will be developed prior to the beginning of each funding year utilizing the following procedures:

(a) The Department will determine and maintain sufficient information concerning potential projects to develop the statewide priority list.

(b) The Department will develop a proposed priority list utilizing criteria and procedures set forth in this section.



(c) A public hearing will be held concerning the proposed priority list prior to Commission adoption. Public notice and a draft priority list will be provided to all interested parties at least thirty (30) days prior to the hearing. Interested parties include, but are not limited to, the following:

(A) Municipalities having projects on the priority list.

(B) Engineering consultants involved in projects on the priority list.

(C) Interested state and federal agencies.

(D) Any other persons who have requested to be on the mailing list.

Interested parties will have an opportunity to present oral or written testimony at or prior to the hearing.

(d) The Department will summarize and evaluate the testimony and provide recommendations to the Commission.

(e) The Commission will adopt the priority list at a regularly scheduled meeting.

(2) The priority list will consist of a listing of all projects in the state potentially eligible for grants listed in ranking order based on criteria set forth in Table "A". Table A describes five (5) categories used for scoring purposes as follows:

(a) Project Class

(b) Regulatory Emphasis

(c) Stream Segment Rank

(d) Population Emphasis

(e) Type of treatment component or components.

The score used in ranking a project consists of the project class identified by letter code plus the sum of the points from the remaining four categories. Projects are ranked by the letter code of the project class with "A" being highest and within the project class by total points from highest to lowest.

(3) The priority list entry for each project will include the following:

(a) Priority rank consisting of the project's sequential rank on the priority list. The project having the highest priority is ranked number one (1).

(b) EPA project identification number

(c) Name and type of municipality

(d) Description of project component

(e) Project step

(f) Project segment code number

(g) Ready to proceed date consisting of the expected date when the project application will be complete and ready for certification by the Department.

(h) Target certification date consisting of the earliest estimated date on which the project could be certified based on readiness to proceed

and on the Department's estimate of federal grant funds expected to be available. In the event actual funds made available differ from the Department's estimate when the list was adopted the Department may modify this date without public hearing to reflect actual funds available and revised future funding estimates.

(i) Estimated grant amount based on that portion of project cost which is potentially eligible for a grant as set forth in Section 340-53-020.

(j) The priority point score used in ranking the projects. Transition projects will be so designated.

(4) The Department will determine the scope of work to be included in each project prior to its placement on the priority list. Such scope of work may include the following:

(a) Development of a facilities plan (Step 1), or

(b) Design (Step 2) or construction (Step 3) of complete treatment works, or

(c) Design or construction of one or more treatment works components, or

(d) Design or construction of one or more treatment works segments of a treatment works component.

(5) When determining the treatment works components or segments to be included in a single project, the Department will consider:

(a) The specific treatment works components or segments that will be ready to proceed during a funding year, and

(b) The operational dependency of other components or segments on the components or segment being considered, and

(c) The cost of the components or segments relative to allowable project grant. In no case will the grant for a single project, as defined by 340-53-010(8) exceed ten (10) million dollars in any given funding year. Where a grant would exceed this amount the scope of work will be reduced by limiting the number of components or dividing the components into segments. The total grant for treatment works to a single applicant is not however limited by this subsection.

The Department shall have final discretion relative to scope of work or treatment works components or segments which constitute a project.

(6) Components or segment not included in a project for a particular funding year will be assigned a target certification date in a subsequent funding year. Within constraints of available and anticipated funds, projects will be scheduled so as to establish a rate of progress for construction while assuming a timely and equitable obligation of funds statewide.

(7) A project may consist of an amendment to a previously funded project which would change the scope of work significantly and thus constitute a new project.

(8) On the FY 1981 priority list, projects for which a Step 2 grant was certified prior to September 30, 1979, are designated as transition projects and will not be ranked according to the criteria. These projects will be placed at the top of the funding year priority list and will maintain the same relative position

that they occupied on the preceding year's priority list. However, if a project has been bypassed in accordance with Section 340-53-035 (2) it will no longer retain its transition status and will be ranked the following year according to the criteria. In FY 1982 and subsequent years all projects will be ranked and scheduled according to the criteria.

(9) FY 80 Fundable List - Since the freeze on FY 80 funds precluded their utilization prior to adoption of the FY 81 priority list, those projects expected to awarded FY 80 grant funds will appear at the beginning of the FY 81 list with the notation that these projects will be awarded grants from FY 80 funds.

(10) The Director may delete any project from the priority list if:

(a) It has received full funding

(b) It is no longer entitled to funding under the approved system.

(c) EPA has determined that the project is not needed to comply with the enforceable requirements of the Clean Water Act or the project is otherwise ineligible.

(11) If the priority assessment of a project within a regional 208 areawide waste treatment management planning area conflicts with the priority list, the priority list has precedence. The Director will, upon request from a 208 planning agency, meet to discuss the project providing the request for such a meeting is submitted to the Director prior to Commission approval of the priority list.

Eligible Costs and Limitations

340-53-020 For each project included on the priority list the Department will estimate the costs potentially eligible for a grant and the amount of the grant.

(1) Where state certification requirements differ from EPA eligibility requirement the more restrictive shall apply.

(2) Except as provided for in subsection (3), eligible costs shall generally include Step 1, Step 2, and Step 3 costs related to an eligible treatment works, treatment works components or treatment works segments as defined in federal regulations.

(3) The following will not be eligible for state certification:

(a) The cost of collection systems except for those which serve an area where a mandatory health hazard annexation is required pursuant to ORS 222.850 to 222.915 or where elimination of waste disposal wells is required by OAR 340-44-019 to 44. In either case, a Step 1 grant for the project must have been certified prior to September 30, 1979.

(b) Step 2 or Step 3 costs associated with advanced treatment components.

(c) The cost of treatment components not considered by the Department to be cost effective and environmentally sound.

(4) The estimated grant amount shall be based on a percentage of the estimated eligible cost. The percentage required by federal law and regulations for FY 1981 is seventy-five (75) percent of the estimated eligible cost. After FY 1981 the Commission may

reduce the percentage to fifty (50) percent if allowed by federal law or regulation. The Department shall also examine other alternatives for reducing the extent of grant participation in individual projects for possible implementation beginning in FY 1982. The intent is to spread available funds to address more of the high priority needs in the state.

Establishment of Special Reserves

340-53-025 From the total funds allocated to the state the following reserves will be established for each funding year:

- (1) Reserve for grant increases of ten (10) percent.
- (2) Reserve for Step 1 and Step 2 projects of ten (10) percent.
- (3) Reserve for alternative components of projects for small communities utilizing alternative system as required by federal law or regulations. For FY 81 federal regulations require four (4) percent.
- (4) Reserve as required by federal law or regulations for additional funding of projects involving innovative or alternative technology. Current federal regulations require three (3) percent for FY 81.
- (5) The balance of the state's allocation will be the general allotment.
- (6) The Director may at his discretion transfer funds from the Step 1 and 2 reserve to the following reserves:
  - (a) The reserve for grant increases
  - (b) The general allotment with first demand for conventional components of small community projects utilizing alternative systems.

Priority List Management

340-53-030 The Department will select projects to be funded from the priority list as follows:

(1) After Commission adoption and EPA acceptance of the priority list, allocation of funds to the state and determination of the funds available in each of the reserves, final determination of the fundable portion of the priority list will be made. The fundable portion of the list will include the following:

(a) Sufficient projects selected according to priority rank to utilize funds identified as the state's general allotment, and

(b) Additional projects involving alternative systems for small communities as necessary to utilize funds available in that reserve.

(2) No project will be funded unless it is included in or added to the fundable portion of the list except for projects funded from the Step 1 and 2 reserve.

(3) Projects to be funded from the Step 1 and 2 reserve will be selected according to their ranking relative to other projects to be funded from that reserve. The projects to be funded from this reserve will be selected from beyond the fundable portion of the list to the limit of funds available in the reserve.

(4) Projects included on the priority list but not included within the fundable portion of the list will constitute the planning portion of the list.



Priority List Modification and Bypass Procedure

340-53-035 The Department may modify the priority list or bypass projects as follows:

(1) The Department may add to or rerank projects on the priority list after the adoption of the priority list but prior to the approval of the priority list for the next year providing:

(a) Notice of the proposed action is provided to all affected lower priority projects.

(b) Any affected project may within 20 days of receiving adequate notice request a hearing before the Commission.

(2) The Department will initiate bypass procedures when any project on the fundable portion of the list is not ready to proceed during the funding year.

(a) The determination will be based on quarterly progress reports.

(b) Written notice will be provided to the applicant of intent to bypass the project.

(c) An applicant may request a hearing on the proposed bypass within 20 days of adequate notice. If requested the Director will schedule a hearing before the Commission within 60 days of the request.

(d) If a project is bypassed it will maintain its priority point rating for consideration in future years. If, however, a project is designated as a transition project as described in Section 340-53-015 (7), it will not retain

its transition status after being bypassed and will be ranked the following year according to the criteria. If a project is bypassed for two consecutive years the Commission may remove it from the priority list.

(e) Department failure to certify a project not on the fundable portion of the list or for which funds are otherwise unavailable will not constitute a "bypass".

TABLE A  
CONSTRUCTION GRANTS PRIORITY CRITERIA  
PROJECT CLASS

Letter Code

Description

A Project will minimize or eliminate surface or under-ground water pollution where:

1. Water quality standards are violated repeatedly or
2. Beneficial uses are impaired or may be damaged irreparably.

In addition:

1. The EQC by rule OAR 340-44-005 to 440-040, had mandated elimination of discharge or inadequately treated waste to disposal wells or
2. The Administrator of the Health Division or the EQC has certified findings of fact which conclude that
  - (a) Water pollution or beneficial use impairment exists and
  - (b) Hazard to public health exists.

Documentation required includes:

1. Field investigations, and
2. Public Notice and hearing and
3. Written findings of fact.

Letter Code

Description

B. Project will minimize or eliminate surface or underground water pollution where:

1. Water quality standards are violated repeatedly or
2. Beneficial uses are impaired or may be damaged irreparably.

Documentation required includes:

1. Actual written documentation of existing water use impairment or
2. Actual written documentation of repeated violation of standards.

C. Project is required to insure treatment capability to comply with water quality standards including:

1. Minimum federal effluent guidelines established by rule pursuant to PL 95-217 or
2. Effluent standards established in an issued WPCF or NPDES permit or
3. Treatment levels or effluent standards that would be placed in a permit to comply with state or federal regulation (for a source not presently under permit).

Documentation required includes:

Actual written documentation of the applicable guideline, standard, permit condition, or other regulatory requirement.

Letter Code

Description

D. Project is necessary to minimize or eliminate pollution of surface or underground waters from:

1. Nonpoint sources where malfunctioning subsurface sewage disposal systems in developed areas are a contributing factor or
2. Point sources where infrequent discharges above permitted levels are a contributing factor.

Documentation required includes:

1. Sufficient information to suggest a problem, but
2. Insufficient data to conclusively demonstrate the problem. Facility planning is expected to provide additional documentation.

E. Project is desirable for prevention of potential water pollution problem.

Documentation required includes:

1. Recognition that a problem could develop in the future, but
2. Lack of information to suggest a present water quality problem.

Regulatory Emphasis

Points

Description

150 Project received a limited time extension to meet the 1977 secondary treatment goals of the Clean Water Act.

Points

Description

Documentation required includes:

1. Addendum to the NPDES permit extending the compliance date, or
2. Stipulated consent agreement indicating noncompliance.

Finding must have been made prior to January 1, 1978.

130 Project is necessary for immediate correction of a public health hazard through extraordinary measures such as:

1. Annexation, or
2. Service district formation.

Documentation required includes:

1. EQC order, or
2. Certification of public health hazard by the Administrator of the Health Division pursuant to ORS 431.705 et.seq. or 222.850 et.seq.

120 Project is necessary to eliminate a voluntary or involuntary moratorium, including:

1. Involuntary connection limitation to a centralized facility, or
2. EQC rule that restricts issuance of subsurface disposal permits for a specific geographic area or

Points

Description

3. Voluntary limitations on connection to a centralized facility or construction of subsurface disposal systems. Voluntary moratorium must meet the following conditions:
  - a. The moratorium was formally enacted prior to August 1, 1979, and
  - b. It attempts to limit flow to a central facility which is at or beyond 90 percent capacity, and
  - c. The jurisdiction has a medium to high growth rate and therefore requires preventive pollution control action.

Documentation required includes:

1. Rule or order establishing involuntary moratorium, or
2. Order, ordinance, or other documentation of voluntary moratorium.

90 Project is necessary because of the potential for regulatory action identified by:

1. NPDES permit limitations or conditions which would be included in a permit when issued or amended, or
2. DEQ approval of a facility plan including a determination of such potential, or
3. A sanitary survey conducted by the Health Division or the DEQ.

Points

Description

Documentation required includes:

DEQ written concurrence based on the above.

- 50 Project is needed because of probable water quality problems identified through preliminary screening of problem and water quality concerns.

Documentation required includes:

Written suggestion by DEQ.

- 0 No immediate need for the project has been identified. Background information is either insufficient or unavailable to document the existence of present water quality problems.

STREAM SEGMENT RANK

Stream Segment ranking points shall be assigned based on the formula:

n

where:

BR = Basin Rank (1 to 19) based on the total population within the Oregon portion of the river basin. The basin having the greatest population is ranked number 1.

n = Number of stream segments in the particular basin.

SR = Segment rank within basin as indicated in the statewide water quality management plan.

Following is a listing of basin ranks, stream segment ranks, and computed stream segment ranking points:



Basin Rank

<u>Basin</u>	<u>1978 Population</u>	<u>No. of Stream Segments</u>	<u>Basin Rank</u>
Willamette	1,672,000	23	1
Rogue	180,100	4	2
Umpqua	84,700	3	3
Deschutes	76,600	4	4
South Coast	76,300	5	5
North Coast/Lower Columbia	66,440	18	6
Klamath	58,200	5	7
Umatilla	50,000	3	8
Mid Coast	44,630	10	9
Hood River	34,200	4	10
Grande Ronde	30,100	3	11
Malheur River	22,480	1	12
Sandy	18,530	3	13
Powder	17,200	4	14
John Day	12,250	2	15
Walla Walla	10,300	2	16
Malheur	7,650	3	17
Goose and Summer Lakes	6,900	2	18
Owyhee	3,420	2	19

## Stream Segment Ranking Points

<u>Segment</u>	<u>Segment Rank</u>	<u>Points</u>
No. 1, Willamette Basin		
Tualatin	1	95.73
Willamette (River Mile	2	93.45
Willamette (River Mile 84-186)	3	91.18
South Yamhill River	4	88.91
North Yamhill River	5	86.64
Yamhill River	6	84.36
Pudding River	7	82.09
Molalla River	8	79.82
S. Santiam River	9	77.55
Santiam River & N. Santiam	10	75.27
Coast Fork Willamette River	11	73.00
Middle Fork Willamette River	12	70.73
Clackamas River	13	68.45
McKenzie River	14	66.18
Rickreall Creek	15	63.91
Luckiamute River	16	61.64
Marys River	17	59.36
Calapooia River	18	57.09
Long Tom River	19	54.82
Columbia Slough	20	52.55
Thomas Creek	21	50.27
Remaining Willamette Basin Streams	22	48.00

### No. 2, Rogue Basin

Bear Creek and Tributaries	1	83.50
Applegate River	2	71.00
Middle Rogue	3	58.50
Remaining Rogue Basin Streams	4	46.00

<u>Segment</u>	<u>Segment Rank</u>	<u>Points</u>
No. 3, Umpqua Basin		
South Umpqua River	1	77.33
Cow Creek	2	60.67
Remaining Umpqua Basin Streams	3	44.00
No. 4, Deschutes Basin		
Crooked River	1	79.50
Deschutes River (River Mile 120-166)	2	67.00
Deschutes River (River Mile 0-120)	3	54.50
Remaining Deschutes Basin Streams	4	42.00
No. 5, South Coast Basin		
Coos Bay	1	80.00
Coos River	2	70.00
Coquille River (River Mile 0-35)	3	60.00
Coquille River (River Mile 35-Source)	4	50.00
Remaining South Coast Basin Streams	5	40.00
No. 6, North Coast/Lower Columbia Basin		
Lewis and Clark River	1	85.22
Klatskanine River	2	82.44
Wilson River (River Mile 0-7)	3	79.88
Trask River (River Mile 0-6)	4	76.88
Skipanon River	5	74.10
Nestucca River (River Mile 0-15)	6	71.32
Nehalem River	7	68.54
Wilson River (River Mile 7 +)	8	65.76
Trask River (River Mile 6 +)	9	62.98

<u>Segment</u>	<u>Segment Rank</u>	<u>Points</u>
Nestucca River (River Mile 15 +)	10	60.20
Nehalem Bay	11	57.42
Tillamook Bay	12	56.64
Tillamook River (River Mile 0-15)	13	51.86
Nestucca Bay	14	49.08
Necanicum River	15	46.30
Tillamook River (River Mile 15+)	16	43.54
Netarts Bay	17	40.74
Remaining North Coast/ Lower Columbia Basin Streams	18	38.00

No. 7, Klamath Basin

Lost River	1	76.00
Klamath River (River Mile 210-250)	2	66.00
Williamson	3	56.00
Sprague	4	46.00
Remaining Klamath Basin Streams	5	36.00

No. 8, Umatilla Basin

Umatilla River	1	67.33
Columbia River (Umatilla Basin)	2	50.67
Remaining Umatilla Basin Streams	3	34.00

No. 9, Mid Coast Basin

Siuslaw Bay	1	77.00
Yaquina Bay	2	72.00
Siletz River	3	67.00
Yaquina River	4	62.00
Alsea River	5	57.00

<u>Segment</u>	<u>Segment Rank</u>	<u>Points</u>
Siuslaw River	6	52.00
Alsea Bay	7	47.00
Salmon River	8	42.00
Siletz Bay	9	37.00
Remaining Mid Coast Basin Streams	10	32.00

No. 10, Hood Basin

Hood River Main Stem	1	67.50
Columbia River (Hood Basin)	2	55.00
Hood River East, (Middle and West Forks)	3	42.50
Remaining Hood Basin Streams	4	30.00

No. 11, Grande Ronde Basin

Grande Ronde River	1	61.33
Wallowa River	2	44.67
Remaining Grande Ronde Basin Streams	3	28.00

No. 12, Malheur Basin

Malheur River	1	26.00
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No. 13, Powder Basin

Snake River (Powder Basin)	1	61.50
Powder River	2	49.00
Burnt River	3	36.50
Remaining Power Basin Streams	4	24.00

<u>Segment</u>	<u>Segment Rank</u>	<u>Points</u>
No. 14, Sandy Basin		
Columbia River (Sandy Basin)	1	55.33
Sandy River	2	38.67
Remaining Sandy Basin Streams	3	22.00
No. 15, John Day Basin		
John Day River	1	45.00
Remaining John Day Basin Streams	2	20.00
No. 16, Walla Walla Basin		
Walla Walla River	1	43.00
Remaining Walla Walla Basin Streams	2	18.00
No. 17, Malheur Lake Basin		
Silvies River	1	49.33
Donner & Blitzen River	2	32.67
Remaining Malheur Lake Basin Streams	3	16.00
No. 18, Goose and Summer Lakes Basin		
Chewaucan River	1	39.00
Remaining Goose and Summer Lakes Basin Streams	2	14.00
No. 19, Owyhee Basin		
Owyhee River	1	17.00
Remaining Owyhee Basin Streams	2	12.00

Population Emphasis

Population emphasis points shall be assigned on the basis of the formula:

$$\text{Points} = \text{Population Served}^2 \log 10$$

where:

Population Served represents the existing Oregon population that would be initially served by the project if it were in operation.

PROJECT TYPE

<u>Description</u>	<u>Points</u>
Secondary Treatment and BPWTT	10
Major Sewer System Rehabilitation	9
Interception of Existing Discharge	8
Infiltration/Inflow Correction	7
Interceptor to Serve Existing Development	6
Treatment More Stringent than Secondary	5
Correction of Combined Sewer Overflows	3
Interceptor to Serve New Development	2
New Collectors	1

RTE:1  
OAL22 (1)  
September 8, 1980

STATE OF OREGON  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
FY 81 PRIORITY POINTS LIST

<u>COMMUNITY/PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>PROJECT STEP</u>	<u>PROJECT CLASS</u>	<u>REG. EMPH.</u>	<u>POP. EMPH.</u>	<u>STREAM SEG.</u>	<u>PROJECT TYPE</u>	<u>TOTAL POINTS</u>	<u>PRIORITY NUMBER</u>
ADAIR VILL CITY	STP IMP	1	E	0	5.48	91.18	10	E106.66	119
ALBANY DRPRVL	INT COLL	2 2	A	130	5.56	91.18	6	A232.74	2
ALBANY NE KNOXBUTTE	INT	1	E	0	5.09	91.18	7	E102.27	123
ALBANY NORTH AREA	INT	1	D	0	6.16	91.18	8	D105.34	109
ASTORIA WILLIAMSPT	INT	2/3	B	90	4.60	38.00	6	B138.60	38
ATHENA CITY	STP IMP	1	C	50	6.00	34.00	10	C100.00	85
BAKER CITY	STP IMP	2	B	150	7.87	49.00	10	B216.87	16
BCVSA WHETSTONE	INT	1	B	90	6.60	46.00	8	B149.60	34
BEND CITY	EFF DISPOSAL	3	A	130	8.47	79.50	10	A227.97	T
BEND CITY	NW INT	3	A	130	7.07	79.50	6	A222.57	T
BORING AREA	SYSTEM	1	D	90	5.40	68.45	10	D173.85	91
BROOKINGS CITY	STP IMP	1	C	90	7.09	40.00	10	C147.09	72
BROOKS AREA	SYSTEM	1	E	0	4.60	91.18	10	E105.78	120
CAMAS VLY AREA	SYSTEM	2	D	90	4.35	40.00	10	D144.35	101



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CANNON BCH CITY	STP IMP	2	C	150	6.08	38.00	10	C204.08	50
CARLTON CITY	I/I CORR	2	C	90	6.29	86.64	7	C189.93	57
CARLTON CITY	STP IMP	2	C	120	6.29	86.64	10	C222.93	46
CARMEL FOUL SAN DIST	SYSTEM	2	E	90	6.00	38.00	10	E144.00	115
CLACK CO RHODO-WLCH	INT	3	B	90	5.48	38.67	8	B142.15	105
CLATSOP PL AREA	INT	2	B	120	6.49	38.00	6	B170.49	30
COOS BAY CITY NO 1	STP IMP	1	B	90	7.91	80.00	10	B187.91	27
CORVALLIS AIRPORT	STP EXP	2	E	120	5.09	48.00	10	E183.09	113
CORVALLIS CITY	CSO	1	C	90	8.48	91.18	3	C192.66	56
CORVALLIS SW ANNEX	INT COLL	2 2	A	130	5.60	59.36	6	A200.96	9
COTTAGE GV CITY	STP IMP	3	B	150	7.74	73.00	10	B240.74	12
	I/I CORR	3							
	INT	3							
	REHAB	3							
COVE ORCH AREA	SYSTEM	2	B	90	4.08	48.00	10	B152.08	32
CRESCENT SAN DIST	SYSTEM	1	E	0	4.08	42.00	10	E 56.08	133

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CRESWELL CITY	STP IMP INT	2 2	C	90	6.51	91.18	10	C197.69	54
DALLAS CITY	STP IMP	2	B	50	7.91	63.91	10	B131.82	39
DALLAS CITY	REHAB	2	B	90	7.91	63.91	9	B170.82	29
DALLAS N.E.	INT	2/3	D	90	5.56	63.91	6	D165.47	93
DETROIT CITY	SYSTEM	1	E	0	5.58	75.27	10	E 90.85	127
DONALD CITY	SYSTEM	3	B	150	4.95	48.00	10	B212.95	19
DOUG CO N. BANK METRO	INT STP	2 3	B	120	8.51	77.33	8	B213.84	
DRAIN CITY	STP IMP	1	B	90	6.23	44.00	10	B150.23	33
DUFUR CITY	STP IMP I/I CORR	2 2	C	90	5.56	30.00	10	C135.56	78
MULT CO INVERNESS E. MULT CO CONSORTIUM EAGLE PT CITY	INT FPR INT	2 1 2	B  C	130  120	8.89  6.87	48.00  46.00	6  8	B192.89  C180.87	25  59
ELGIN CITY	I/I CORR REHAB	2 2	C	150	6.48	61.33	7	C224.81	45
ELGIN CITY	STP IMP	2	C	150	6.48	61.33	10	C227.81	44

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ENTERPRISE CITY	STP IMP I/I CORR	2 2	C	120	6.60	44.67	10	C181.27	58
ESTACADA CITY	STP IMP I/I CORR	2 2	C	90	6.16	68.45	10	C174.61	63
FALLS CITY CITY	SYSTEM	1	B	90	5.88	61.64	10	B167.52	31
FLORENCE CITY	STP IMP I/I CORR	2 2	C	90	7.48	52.00	10	C159.48	68
FOSSIL CITY	STP IMP	1	C	90	5.63	20.00	10	C125.63	82
GATES CITY	SYSTEM	1	E	0	4.95	75.27	10	E 90.22	129
GRANTS PS CITY	STP IMP	1	C	90	9.20	58.50	10	C167.70	66
GRD RONDE AREA	SYSTEM	1	B	90	5.11	88.91	10	B194.02	24
HALSEY CITY	STP IMP	1	C	50	5.72	48.00	10	C113.72	84
HAMMOND WRNTN	FPR	1	A	130	6.97	38.00	10	A184.97	11
HAPPY VAL CITY	INT	2	B	130	6.32	48.00	6	B190.32	26
HEPPNER CITY	STP IMP	1	C	90	6.48	34.00	10	C140.48	75
HUBBARD CITY	STP IMP	2	C	50	6.35	82.09	10	C148.44	71

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IDANHA CITY	SYSTEM	1	E	0	5.14	75.27	10	E 90.41	128
IONE CITY	SYSTEM	2	B	90	5.27	20.00	10	B125.27	40
IRRIGON CITY	SYSTEM	2	D	130	5.42	50.67	10	D196.09	87
JOSEPH CITY	STP IMP	2	C	90	5.96	28.00	10	C133.96	79
JUNCTION CY CITY	STP IMP	2	D	0	6.95	91.18	10	D108.13	106
K-FALLS PELICAN CY	INT	2/3	D	90	5.91	66.00	6	D167.91	92
K-FALLS REGIONAL	STP EXP I/I CORR	2 2	C	90	8.52	66.00	10	C174.52	64
K-FALLS RIVERSIDE	INT	2/3	E	50	5.81	66.00	6	E127.81	117
K-FALLS STEW-LENN	INT COLL	3 3	A	130	6.00	66.00	6	A208.00	8
LAPINE TOWN	SYSTEM	1	D	50	2.95	67.00	10	D129.95	104
LOWELL CITY	II CORR REHAB	2 2	C	90	5.69	70.73	7	C173.42	65
LOWELL CITY	STP IMP	2	C	90	5.69	70.73	10	C176.42	61
LYONS MEMA AREA	SYSTEM	1	E	0	6.21	75.27	10	E 91.48	125

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MADRAS	FRINGE	INT COLL	2 2	A	130	5.40	67.00	6	A208.40	7
MAPLETON	AREA	SYSTEM	1	D	0	5.83	52.00	10	D 67.83	112
MEDFORD	FOOTHILLS	INT COLL	3 3	A	130	4.16	83.50	6	A223.66	4
MERLIN	COL VLY	SYSTEM	1	D	50	8.21	58.50	10	D126.71	105
MERRILL	CITY	STP EXP	1	E	0	5.91	76.00	10	E 91.91	124
MILL CITY	CITY	SYSTEM	1	D	50	6.46	75.27	10	D141.73	103
MLTN FRWTR	CITY	STP IMP INT	2 2	C	90	7.33	18.00	10	C125.33	83
MODOC PT	TOWN	SYSTEM	1	C	90	3.40	36.00	10	C139.40	77
MONROE	NORTH	STP INT COLL	3 3	A	130	3.69	54.82	6	A194.51	10
MONROE	CITY	STP EXP REHAB	3 3							
MT. ANGEL	CITY	STP IMP I/I CORR	2 2	C	150	6.83	82.09	10	C248.92	41
MWMC	AGRIPAC	EFF DISPOSAL	2	C	90	5.40	91.18	10	C196.58	T

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MWMC	EUGENE	REHAB	3	C	90	10.03	91.18	9	C200.21	T
MWMC	REGIONAL	PS #1	2	B	90	9.50	91.18	8	B198.61	T
MWMC	REGIONAL	PS #2	2	C	90	8.52	91.18	8	C197.70	T
MWMC	REGIONAL	STP SLUDGE	2 2	B	150	10.33	91.18	10	B261.51	T
MWMC	SPRINGFIELD	REHAB	3	C	90	9.25	91.18	9	C199.43	T
N. POWDER	CITY	STP IMP	2	D	90	5.29	49.00	10	D154.29	96
NESKOWIN	SAN AUTH	SYSTEM	2	D	90	4.80	38.00	10	D142.80	102
NEWBERG	CITY	I/I CORR REHAB	2 2	B	90	8.12	93.45	7	B198.57	21
NEWBERG	CITY	STP IMP	2	B	90	8.12	93.45	10	B201.57	23
NEWPORT	CITY	STP IMP I/I CORR	2 2	C	90	7.71	32.00	10	C139.71	76
OAKLAND	CITY	STP IMP	2	C	90	6.09	44.00	10	C150.09	70
OAKLAND	UNION GAP	INT	2/3	D	90	4.56	44.00	6	D144.56	100
OAKRIDGE	CITY	II CORR REHAB	2 2	C	90	7.27	70.73	7	C175.00	62

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OAKRIDGE CITY	STP IMP	2	C	90	7.27	70.73	10	C178.00	60
ODELL SAN DIST	STP EXP	1	E	50	6.16	30.00	5	E 91.16	126
ONTARIO CITY	STP IMP	2	C	90	7.90	26.00	10	C133.90	80
PHILOMATH CITY	STP IMP	1	C	90	6.76	59.36	10	C166.12	67
PILOT ROCK CITY	STP IMP	1	D	50	6.50	34.00	10	D100.50	110
PORTLAND CITY	SLUDGE - GAS UT DISP	2	C	90	11.40	48.00	10	C159.40	T
PORTLAND COL. BV RLVG	INT	1	C	90	10.60	93.45	8	C202.05	51
PORTLAND SE RELVG	INT	3	C	90	10.40	93.45	8	C201.85	T
PORTLAND SW 45th	INT	3	A	130	5.56	95.73	6	A237.29	1
PRAIRIE CY CITY	INT	3	D	50	6.10	45.00	6	D107.10	108
PRAIRIE CY CITY	STP IMP INT	3 3	C	150	6.10	45.00	10	C211.10	48
PRINEVILLE CITY	STP IMP	2	D	0	7.56	79.50	10	D 97.06	111
RAINIER CITY	REHAB I/I CORR	2 2	C	90	6.61	38.00	7	C141.61	74

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ROSEBURG CITY	REHAB	3	B	90	8.51	77.33	9	B184.84T	T
ROSEBURG RIFLE RNG	INT COLL	3 3	A	130	4.35	77.33	6	A217.68	6
S. SUB SAN DIST	STP IMP	2	C	150	8.53	66.00	10	C234.53	42
SALEM CITY	FPR	1	B	90	9.91	93.45	10	B203.36	20
SANDY CITY	STP EXP	1	E	0	6.91	68.45	10	E 85.36	130
SCAPPOOSE CITY	STP IMP	1	E	0	7.00	48.00	10	E 65.00	132
SCIO CITY	STP IMP	2	C	150	5.48	50.27	10	C215.75	47
SEASIDE CITY	STP IMP REHAB	2 2	B	150	7.38	46.30	10	B212.68	17
SHERIDAN CITY	REHAB I/I CORR	2 2	C	90	6.71	88.91	9	C194.62	55
SHERIDAN WEST AREA	INT	2/3	D	90	4.60	88.91	6	D189.51	88
SILVERTON CITY	INTS	3	B	90	7.48	82.09	8	B187.57	28
SILVERTON NORWAY	INT COLL	3 3	A	130	4.16	82.09	6	A222.25	5
SILVERTON CITY	STP IMP REHAB	3 3							



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SISTERS CITY	SYSTEM	2	D	90	5.81	42.00	10	D147.81	99
SODAVILLE CITY	SYSTEM	1	D	90	4.56	57.09	10	D161.65	95
ST. HELENS CITY	STP IMP I/I CORR	2 2	C	90	7.82	38.00	10	C145.82	73
STANFIELD CITY	STP IMP I/I CORR	2 2	C	150	6.26	67.33	10	C233.59	43
SW LINCOLN SAN DIST	SYSTEM	1	B	90	6.62	32.00	10	B134.62	27
TANGENT CITY	SYSTEM	1	E	0	5.45	57.09	10	E 72.54	131
TERREBONNE TOWN	SYSTEM	1	A	130	4.95	79.50	10	A224.45	3
THE DALLES FOLEY LKS	INT	2/3	C	90	5.75	30.00	6	C131.75	81
TRI CITY MYRTLE CREEK	STP IMP	1	D	90	7.56	77.33	10	D184.89	89
TRI CY CO REGIONAL	STP INTS	2 2	B	120	9.10	93.45	10	B232.55	13
ORE CITY	REHAB	2							
GLADSTONE	REHAB	2							
TRI CY CO ORE CITY	I/I CORR	2	B	120	8.33	93.45	7	B228.78	15
WEST LINN	I/I CORR	2							
GLADSTONE	I/I CORR	2							

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TURNER CITY	INT	2	D	0	6.12	91.18	10	D107.30	107
TWIN ROCKS SAN DIST	STP EXP	2	E	90	5.63	38.00	10	E143.63	116
USA BANKS	INT	2	C	90	5.31	48.00	8	C151.31	69
USA CEDAR MILL	INT	2	C	90	6.00	95.73	8	C199.73	52
USA DURHAM	SLUDGE	2	D	50	10.16	95.73	8	D163.89	94
USA GASTON	INT	2	C	90	4.00	95.73	8	C197.73	53
USA HILLSBORO	INT	1	B	90	6.60	95.73	8	B200.33	22
USA N. PLAINS	INT	1	E	50	5.90	95.73	6	D197.63	86
USA REEDVILLE	INT	2	E	0	7.75	95.73	2	E105.48	121
USA ROCK CREEK	INT	2	B	120	7.90	95.73	8	B231.63	14
USA SUNSET	INT	2	E	0	6.35	95.73	2	E104.08	122
VENETA CITY	STP EXP	1	E	90	6.60	54.82	10	E161.42	114
VERNONIA CITY	STP IMP	1	C	120	6.52	68.54	10	C205.06	49
WALLOWA CITY	STP IMP	1	D	90	5.99	44.67	10	D150.66	97
WALLOWA LK SAN AUTH	SYSTEM	1	E	50	6.00	44.67	10	E110.67	118

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WAUN-WESPT SAN DIST	SYSTEM	2	B	90	5.69	38.00	10	B143.69	35
WINSTON-GR LANDERS LN	INT	1	D	90	4.23	77.33	6	D177.56	90
YONCALLA CITY	STP IMP	1	D	90	5.86	44.00	10	D149.86	98

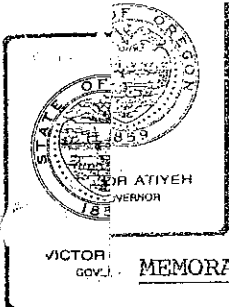
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# Environmental Quality Commission

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*Roy Potter*  
*FAS*  
*HMP*  
*AP*  
*KU*



## MEMORANDUM

To: Environmental Quality Commission

From: Peter Bosserman, Air Quality Staff

Subject: Agenda Item No. P, September 19, 1980, EQC Meeting

An Amendment to Volatile Organic Compound Rule 340-22-120

### Background

A September 5, 1980 draft of the Volatile Organic Compound rules were mailed to the Commission, with the recommendation to adopt. Copies were also sent to the plants affected. One of the gasoline bulk plants noted a flaw in the 340-22-120 rule, phoned me Tuesday, and confirmed that with the attached letter.

As written 340-22-120 requires bulk plants, in the Portland AQMA, with a through-put of over 4000 gallons of gasoline per day, to put in vapor balance on the loading rack and delivery truck, even if all the accounts they serve are exempt from vapor balance, because of handling less than 10,000 gallons per month each, as allowed by 340-22-110(2)(c). Since these bulk plants would capture no vapor at the service stations, it was not intended to have them install vapor balance on their gasoline-delivering racks and trucks.

The Staff and EPA reached a compromise over the "Bubble rule", 340-22-108, which EPA disapproved. Oregon would not submit 340-22-108 as part of the State Implementation Plan, but would submit each case to EPA where 340-22-108 was used.

### Recommendation

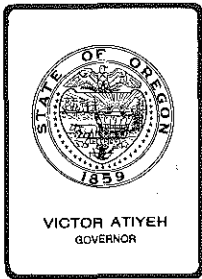
Therefore, the Director hereby modifies his recommendation contained on page 13 of his memorandum to the Commission regarding Agenda Item P, September 19, 1980, EQC Meeting by recommending that proposed OAR 340-22-120(1)(c) be modified as follows, and be adopted as so modified (additions to the proposed rule are shown by underlining):

#### 340-22-120 (1) (c)

If a bulk gasoline plant which is located in the Portland AQMA, transfers less than 4,000 gallons of gasoline per day (annual through-put divided by the days worked), or if each of the dispensing facilities to which the plant delivers receives less than 10,000 gallons per month, then capture of displaced vapors during the filling of delivery vessel(s) from the bulk plant is exempt from 340-22-120(1)(b) and the bulk plant's customers are exempt from 340-22-110(1)(b) and (c). If a bulk gasoline plant is located in the Medford-Ashland AQMA, or in the Salem SATS, capture of displaced vapors during the filling of delivery vessel(s) from the bulk plant is exempt from 340-22-120(1)(b) and the bulk plant's customers are exempt from 340-22-110(1)(b) and (c).

Also the Director recommends that 340-22-108 not be submitted to EPA as part of the State Implementation Plan.

*Adopted by EQC, as amended above, plus first 3 compliance dates for misc. printing delayed to 1982 dates.* P. D. 9/22/80



## *Environmental Quality Commission*

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### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. P, September 19, 1980, EQC Meeting

Adoption of Changes to Volatile Organic Compound Rules  
(340-22-100 to -220) and to Permit Fee Rules (340-20-155)  
as Amendments to the State Implementation Plan

### BACKGROUND AND PROBLEM STATEMENT

Background Three areas of Oregon exceed the National Ambient Air Quality Standard for ozone. These three areas, Portland, Salem, and Medford, need reductions of the ozone precursors, Volatile Organic Compounds (VOC), in order to make progress towards attainment of ozone standards. The Clean Air Act and EPA guidance allows areas to get an extension of the December 31, 1982, compliance date for the ozone standards provided Reasonable Available Control Technology (RACT) regulations are established. EPA guidance indicates that adoption of certain RACT rules in 1980 would meet the RACT requirements.

Problem Statement The VOC rules, as adopted by the Environmental Quality Commission (EQC) on June 8, 1979, must be amended to correct thirteen deficiencies specified in EPA's June 24, 1980, conditional approval of the State Implementation Plan (SIP). Also, the Department has agreed to pass rules each year as EPA publishes guideline documents for existing sources of VOC. This second round of VOC rules must be passed in 1980 as required by EPA and Oregon's SIP.

Authority for the Commission to Act comes from Oregon Revised Statutes 468.020 and 468.295(3) where the Commission is authorized to establish emission standards for certain areas of the state for different classes of air contaminant sources.

A Statement of Need for Rulemaking is the first attachment of this memorandum.



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ALTERNATIVES AND EVALUATION

Changes required by EPA to Existing Rules To satisfy the conditions of EPA's June 24, 1980, (Federal Register page 42269) approval of our SIP, Oregon must address the changes requested by EPA by December 24, 1980.

Request 1 "The definition of delivery vessel, 340-22-100(9) must be modified to include the transport of gasoline from terminals to bulk plants."

DEQ Action See rewritten definition, 340-22-102(11), where words which limited the applicability in the original definition were deleted.

Request 2 "The 90 percent vapor capture requirement (-100 and -115) has not been shown to be equivalent to a vapor tight balancing system. Replacement of the 90 percent rule with an equipment specification rule or a demonstration of equivalency is needed."

DEQ Action Rules 340-22-110 and -120 are rewritten to be simply equipment specification rules.

Request 3 "Conflicting exemptions from requirements for vapor capture contained in -110(2)(c) and -115(5) need to be resolved,"

DEQ Action Rule 340-22-110(2)(c) was expanded to include former -115(5). Former -115(5) is being deleted. No conflicting exemptions remain.

Request 4 "OAR 340-22-115(5): Exempting delivery vessels and storage tanks at gasoline dispensing facilities from vapor capture requirements, where the source (gasoline dispensing facility) receives 250,000 gallons of gasoline or less per year from a bulk plant, has not been shown to be RACT. The State must either: (a) Demonstrate that exempting gasoline dispensing facilities and delivery vessels from vapor capture requirements is RACT so long as the gasoline is from a bulk gasoline plant and the dispensing facility receives no more than 250,000 gallons of gasoline or less per year, or (b) restrict the gasoline dispensing facility size cut-off exemption from 250,000 gallons per year to the recognized CTG (Control Technology Guideline) exemption of 10,000 gallons per month."

DEQ Action EPA Region X draws no distinction here between the urban area of the Portland AQMA, which has a population of over 1,000,000 and the rural areas of Salem and Medford, which have populations under 200,000. The Medford and Salem areas are rural, and Medford will attain the ozone standards by 1982, without vapor balance on the delivery side of bulk plants, and without vapor balance at bulk plant customer's service stations. EPA's national policy is to exempt small rural sources (under 100 tons of VOC per year where the area population is under 200,000) from gasoline marketing VOC rules. Therefore rules 340-22-110 and -115 have been rewritten to exempt gasoline marketing from vapor balance, when delivered from bulk plants, in the Medford and Salem rural areas.

Because the Portland AQMA will not attain the ozone standard by 1982, and because most gasoline in Portland is delivered direct from terminals, the stringent rule requiring vapor balance for stations over 10,000 gallons per month will be kept. Where this tends to be an economic hardship, individual bulk plants and their customers will be informed about how to apply for variances to delay the effect of the rule. See alternatives and discussion in Issue 3 at the back of this memorandum.

Request 5 "OAR 340-22-122(1): Permitted exceptions to the requirement for vapor capture during the filing of tank trucks at bulk gasoline terminals were not identified. The specified exceptions must be provided."

DEQ Action See 340-22-130(3)(a) where the exception is limited to a switch from gasoline to diesel and certain other delivery service.

Request 6 "OAR 340-22-125 contains no limitations on the use of solvents in emulsified asphalt. EPA has published a list of emulsified asphalt uses with corresponding maximum solvent contents. This guidance should be used in establishing limits on the addition of solvents to emulsified asphalt."

DEQ Action See added solvent limits in emulsified asphalt in 340-22-140(4), taken from October 4, 1979, EPA memo from R. G. Rhoads to Region X, and translated into industry terms with the consultation of Chevron U.S.A., Shell Oil Co., and the Asphalt Institute.

Request 7 "OAR 340-22-140 does not specify that the term "coating line" includes the coater, flash-off area, and dryer."

DEQ Action See added section 340-22-170(3), extracted from EPA model rule XX.9120(c), describing what is included in a coating line.

Request 8 "OAR 340-22-140 provides no documentation that the less restrictive emission requirements permitted for "inert gas process paper coating" are in fact RACT."

DEQ Action Data from 3M's October 11, 1978, meeting with DEQ, and 3M's testimony at the October 16, 1978, VOC public hearing, shows that a 4.7 pounds per gallon plant site basis requirement for inert gas process paper coating is 65 percent control, more restrictive than EPA's RACT value of 2.9 pounds per gallon on a coating line basis, which is 57 percent control. This data was officially submitted to Region X by the Department on March 13, 1980. Further computations and coordination resulted in a meeting between EPA, DEQ, and 3M Company in Seattle on May 15, 1980. It was finally agreed that the rule would be changed to EPA's 2.9 rule, with the inert gas process value of 4.6 pounds per gallon allowed under an equivalency clause in 340-22-170(5).

Requests 9,10,11

9. "OAR 340-22-145: The cold cleaner rule fails to provide specific requirements for agitated solvents, heated solvents, and solvents with higher vapor pressures."
10. "OAR 340-22-146: The open top vapor degreaser rule does not require both a powered cover and specific freeboard ratio."
11. "OAR 340-22-147: The conveyORIZED degreaser rule does not require a major control device for those degreasers with an air/vapor interface greater than two square meters."

DEQ Action The requested specific requirements for agitated and heated solvents, and solvents with higher vapor pressures, have been added. See proposed additions to the rule: 340-22-180(d), (e), and (f). See rewritten 340-22-183(a)(ii) where both a powered cover and a specific freeboard ratio are now required. See 340-22-186(f) where a major control device is required for conveyORIZED degreasers with an air/vapor interface greater than 2 square meters.

Request 12 "VOC source test methods have not been submitted by the State for EPA approval;" see the June 24, 1980, Federal Register, page 42272.

DEQ Action The state is preparing a set of source test methods to be submitted before December 24, 1980 to EPA for approval.

Request 13 Required increments of progress, as required by 40 CFR 51.15 were omitted. The public participation requirements found in 40 CFR 51.4 are also applicable and must be satisfied."

DEQ Action See the increments of progress added to 340-22-107(3). These were publicized and comments were received at the May 21, 1980 hearing. This satisfies the requirements of 40 CFR 51.4 and 51.15.

CHANGES TO THE RULES BY THE STAFF

The Cutback Asphalt rule is being clarified by expressing the rule in universally accepted standard trade terms, slow curing (SC), medium curing (MC), etc., rather than in scientific terms which are not familiar to the industry. The VOC rules are being renumbered at the request of the Secretary of State's codifier, and the definitions listed in alphabetical order.

Various other clarifications are being proposed by the staff to make the rules easier to understand.

ADDITIONS TO THE RULES--EPA'S SECOND ROUND OF VOC RULES

The second round of VOC rules are proposed as below, generally following the model rules (EPA-450/2-79-004) provided by EPA, and the ten published EPA guideline documents.



<u>EPA Guideline Document</u>	<u>Category</u>	<u>Oregon Rule No.</u>	<u>Remarks</u>
1. EPA-450/2-78-036	Refinery Leaks	340-22-153	Only one plant affected
2. EPA-450/2-78-015	Misc. Parts Painting	340-22-170, last five items in Table 1.	Many affected sources
3. EPA-450/2-78-035	Vegetable Oils	none	Withdrawn by EPA: no plants in Oregon, negative declaration to EPA.
4. EPA-450/2-78-032	Flat Wood Coating	340-22-200	Two plants in Medford.
5. EPA-450/2-78-029	Pharmaceu- ticals	none	Negative declaration to EPA, no plants in Oregon
6. EPA-450/2-78-030	Rubber Tires	none	Negative declaration to EPA, no plants in Oregon
7. EPA-450/2-78-033	Rotogravure and Flexography	340-22-210	One plant in Oregon
8. EPA-450/2-78-047	Large Tank Second Seals	340-22-160(4)	Gasoline and methanol storage
9. EPA-450/2-78-050	Perc Dry Cleaning	340-22-220	Many dry cleaners
10. EPA-450/2-78-051	Tank Truck Leak Tests	340-22-137	Many gasoline delivery trucks

ADDITIONS TO THE RULES BY THE STAFF

The staff proposed statewide VOC rules for major sources. The testimony and possible alternatives for this rule are discussed later in this memorandum. The issue of allowing other VOC pollution control devices (besides afterburners) to be idle during winter months is also discussed later in this memorandum.

By additions to Table A of 340-20-155(1), permit fees are proposed for the larger sources of VOC. These fees will cover part of the Department's cost of administering the VOC rules.

An alternative control system rule, 340-22-108, is proposed as promised to the Commission in Agenda Item A2, issue 10, on June 8, 1979. For VOC sources, the Department (with EPA approval) could allow a plant to exceed a

VOC rule in process "X" if it was compensated for by capture of an equal amount of VOC in process "Y"; this is also known by the term "bubble concept." Of course this exemption from a rule through the bubble concept, could later be revoked, by the Commission following due process, through additional rules requiring further VOC reductions in the process "Y". EPA, Region X, wrote in a May 21 letter that 340-22-108 was inconsistent with EPA's bubble policy, as it did not include limitations of that policy. The staff points out that EPA must approve each and every case under 340-22-108, so EPA should not reject the rule. See major issue 6 where this is discussed on page 11 of this memorandum.

The staff added a list of exempt degreasing fluids at the beginning of the degreaser rules, 340-22-180, to clarify the rule and to promote the most cost effective way (switching to a non-reactive fluid) of complying with the rule.

#### COSTS AND VOC REDUCTIONS

The costs and VOC reductions resulting from the proposed Round II rules are summarized as follows:

<u>Rule</u>	<u>Category</u>	<u>Sources</u>	<u>Annualized<sup>a</sup> Costs \$/yr</u>	<u>VOC Reductions Tons/year</u>
340-22-137	Delivery Vessel Leak Testing	170	221,000	(4,000 indirectly) <sup>b</sup>
340-22-153	Refinery Leaks	1	11,500	negligible
340-22-160(4)	Large Tank Second Seals	9	99,000	216
340-22-170	Misc. Parts Painting	31	1,271,000	1,000
340-22-200	Flat Wood Coating	2	401,600	188
340-22-210	Rotogravure and Flexography	1	72,800	150
340-22-220	Perchloroethylene Dry Cleaning	185	92,500	200

<sup>a</sup>Costs were figured from data in the Control Technology Guideline documents, except the Department staff generated the costs for Delivery Vessel Leak Testing.

<sup>b</sup>Assures capture of 4,000 TPY through annual tests; the 4,000 TPY reduction was accomplished in the first round of VOC rules.

#### RULE DEVELOPMENT PROCESS

The second round EPA Guideline documents were published in June and December 1978. Many of the businesses affected had inputs to those documents through their trade associations. The staff has explained these rules to the Association of Oregon Industries (August 21, 1979, February 7, and June 17, 1980), to the Oregon Dry Cleaners Association (September 30, 1979), to the Oregon Oil Jobbers Association (November 17, 1979 and March 19, 1980), to the Pacific Northwest Society for Coatings Technology (Spring 1979 and February 19, 1980), and Western Oil and Gas Association Oregon committee (September 1979 and June 18, 1980).

The staff has met individually with most of the larger industries affected.

Members of the Department's air quality staff have reviewed the rules, as have members of the Northwest Region and Willamette Valley offices. Comments from LRAPA have been received.

Presentations on the overall VOC control program were given to the Portland Air Quality Advisory Committee on October 9, 1979, and March 11, 1980.

A public hearing was held May 21, 1980, on these rules. See the attached hearings report.

#### ISSUES AND RESOLUTION

The Department has identified 8 major issues from all the testimony and comments received. The other testimony and comments are considered minor and are dealt with in an attachment to the Hearing's Report appended to this report.

##### Issue 1: Statewide VOC Rule

Rule 340-22-104 was rewritten for the May 21, 1980, hearing to include major (100 tons per year) VOC sources in areas of the State now exempted from VOC rules, and to explain that small sources (under 100 tons per year) of VOC must comply with these rules only in the Portland, Medford, and Salem areas.

The reasons for statewide VOC rules for major sources are found in an EPA May 4, 1979, memo, from Rhoads to Devine, giving EPA policy concerning the need for emission offsets in rural areas for ozone. In the fourth paragraph, a major rural source is exempt from offsets if the State has adopted Statewide VOC RACT regulations. In the sixth paragraph it is noted that preconstruction monitoring can be avoided "(1) If the State has adopted Statewide VOC RACT regulations, the State must, after issuing the construction permit, then require the source to perform air quality monitoring during the construction of the new facility or (the state) perform the monitoring itself." The Department believed the benefit of a Statewide RACT rule for existing sources (to allow new or expanded sources to locate in attainment areas without offsets) far outweighed the burden of control of a small number of existing sources.

Testimony was received from 13 persons opposing any statewide VOC rule; no one spoke in favor of it. Testimony could be summed up as:

- a. Don't visit the sins of Portland on Coos Bay (Glen Odell)
- b. A statewide rule would impose an unnecessary cost burden, not required by EPA, and would be a misguided strategy doomed to fail (Oil Companies).
- c. There are some sources out there affected that aren't in the Department's emission inventory (AOI), or included in the cost summaries.
- d. The cost to change some methanol tanks and gasoline loading tanks are extremely high (Resin and Oil companies).
- e. The industries testifying preferred pre-construction monitoring and offsets near non-attainment areas for new or major expansions, rather than state-wide VOC rules for existing major sources.

#### Alternatives

- A. Delete the statewide, major source, VOC rule.
- B. Let the staff, Association of Oregon Industries, and Western Oil and Gas Association, study it and report back to the Commission; pass the other rules without it.
- C. Adopt the statewide rule as slightly amended and offered at the May 21, 1980 hearing (May 20, 1980 draft).

Resolution Refer the statewide rule to a study committee as in B above. The other rules, required by EPA, can stand without it.

#### Issue 2: Control Off in Winter

In the rule covering exemptions, 340-22-106(1), to conserve energy, the staff considered the possibility of allowing other VOC pollution control devices (besides afterburners) to be idle during the winter months. This addition was discussed in an exchange of letters with EPA (see document 13 in the Statement of Need). EPA is agreeable to such a program on a case by case basis only. Facts supporting the need for this change need to be gathered, and considerable staff time is needed to draft a rule, obtain EPA review, and to obtain review and understanding by the Department air quality and field staff.

Considerable testimony was received from industry, favoring this change. The painting industry testified to the need for using more solvents in winter than allowed by 340-22-170, and having that exempted by 340-22-106(1) language. Such a request appears to be outside the context of EPA's letter on this subject.

If Oregon adopts extremely broad and unspecific wintertime exemptions, SIP approval by EPA is probably severely jeopardized, as EPA desires are already specifically stated.

### Alternatives

- A. Ignore industry testimony, do not pursue possibilities opened by EPA's letter, make no change in 340-22-106(1) where only natural gas fired afterburners are allowed to lay idle in the winter months.
- B. Defer changing this exemption until an industry/DEQ committee has had a chance to propose rule language compatible to EPA's letter on the subject, and until EPA has reviewed such a rule change.
- C. Adopt a simple rule change, such as inserting "and other VOC pollution control devices" twice in 340-22-106(1) following the word "afterburners".

Resolution Defer expansion of the winter exemption rule to a study committee as in B above. Alternative C seems certain to receive disapproval of the VOC rules and SIP by EPA. Alternative A ignores the needs expressed in much testimony.

### Issue 3: Vapor Balance for Bulk Plants and Their Customers

Testimony from Oregon's rural areas indicates that requiring vapor balance of bulk gasoline plants and their medium sized customers (120,000 to 250,000 gallons per year) is so costly that it puts them out of business. As EPA national policy would let sources under 100 tons of VOC per year be exempt in rural areas (Medford and Salem), the rules can be rewritten to impose vapor balance only on Portland area bulk plants larger than 4,000 gallons per day, and on their customers over 10,000 gallons per month. An EPA memo, G.T. Helms to Jim Sydnor, December 21, 1979, authorizes this approach.

### Alternatives

- A. Exempt bulk plants and their customers from vapor balance, citing that costs to vapor balance put bulk plants and their customers out of business and therefore such vapor balance is not RACT.
- B. Exempt bulk plants and their customers from vapor balance only in Medford and Salem; impose it in Portland. Cite EPA's rural policy.
- C. Impose vapor balance on bulk plants (except for those under 4,000 gallons per day) and their customers (except for those under 10,000 gallons per month) as cited in the Control Technology Guideline Documents.

Resolution Adopt B in response to testimony from rural areas, but let hardship cases in Portland (who did not individually testify, as only major oil corporate persons testified for relief for these parties, without submitting costs) be alleviated by variances as necessary. This change meets EPA requirements for SIP approval.

Issue 4: 4.0 lb/gal Air Dried Paint Rule

Twelve persons testified in favor of the Department's proposal to allow 4.0 lb. solvent per gallon of air-dried paint, rather than the 3.5 found in EPA's Control Technology Guideline document. These persons generally said that paint conforming to a 3.5 rule in 340-22-170 would not work on their product or for a customer. Weather data showed rain and cool weather in the oxidant season, which can cause failure of a paint formulated to a 3.5 rule.

On the other hand, Washington State adopted a 3.5 rule in July, 1980. San Francisco area adopted a 2.8 rule earlier this year. The Washington rule comes into effect in July 1982, while California rules come into effect in January 1982. Formulations to meet a 3.5 rule are thus being developed on the West Coast, before the proposed Oregon rule would come into effect in December 1982.

Alternatives

- A. Per EPA's document, make air dried paint for miscellaneous products in Table 1 of 340-22-170 conform to a 3.5 lb. VOC per gallon of paint, less water.
- B. Per testimony, relax air dried paint rule to 4.0 lb.

Resolution

Adopt A per EPA guidance and per actions of other West Coast regulatory agencies.

Issue 5: Exempt Small Paint Sources

The Department followed EPA's rule guideline document and set the exemption point for miscellaneous paint sources at 15 lb. per day of VOC emitted. This could be as little as three gallons per day, or about one ton per year. Testimony was received that many small firms would have to buy expensive painting equipment to meet these rules, that they wouldn't have much effect on ozone violations, therefore they ought to be exempt.

The staff reasoned that formulations of high solids paint being developed for large firms could be sold and used at smaller firms. Since so many gasoline service stations were being regulated (the smallest of which emit only one ton per year of VOC), that being a small source didn't of itself constitute an adequate basis for exemption. It is noted that Washington State and California agencies are establishing exemption points of about 15 lb. per day.

Alternatives

- A. Adopt a 1 ton per year (15 lb per day) exemption point for air dried rule.

- B. Adopt a 10 ton per year exemption point.
- C. Adopt a 20 ton per year exemption point.

Resolution Adopt A per EPA guidance; if too many variances come in for 1 to 20 ton per year sources, consider a rule change next year. In the meantime, see if small sources can meet the rule by formulation change only.

Issue 6: Alternative Controls ("Bubble Rule")

Proposed rule 340-22-108 is titled Alternative Controls, and is also known as the "bubble rule", because its effect is as though a bubble had been blown over a whole plant site, and a certain sum is allowed to escape the bubble, with the plant having the flexibility to choose the most cost effective control scheme. The important feature is that the plant is held only to the total, and individual sources are allowed to exceed their individual VOC rules, if compensation is made by emitting less from other processes.

The Department chose to draft a simple, half page rule; but it includes a requirement to secure EPA approval in each case. EPA's Region X testimony, a two page May 21, 1980, letter, says "we would not be able to approve it as a SIP revision because it is inconsistent on almost all points with EPA's "Bubble Policy". The Oregon rule has nearly no restrictions, but does require securing EPA approval on a bubble proposal. The Department would pass EPA's "Bubble Policy" (December 11, 1979, FR pp 71780 to 71788) to applicants working up bubble proposals. Since it is only a policy, and not a rule or a law, some flexibility is available. In the first page of EPA's policy it states "EPA will consider additional comment on these same issues in individual proceedings." EPA, at the headquarters level, seems to be more flexible on this policy. EPA's "Bubble Policy" seems so restrictive that it renders the idea unworkable; therefore the Department would rather not make the state rule unworkable with these federal additions. It is better to refer each case to EPA, if it is DEQ approved, for a case-by-case review.

Testimony from four parties favored the simple Oregon bubble rule. They especially stressed the need for a bubble rule concurrent with adoption of the miscellaneous paint rule and the flexographic press rule; these new rules would be very costly, perhaps impossible, without a companion bubble rule.

Alternatives

- A. Adopt the simple 340-22-108 as written and proposed for hearing in April, 1980. Ask EPA to reconsider its disapproval.
- B. Tack on numerous prohibitions from the federal "bubble policy", negotiate Region X approval, then pass the rule at a later date.
- C. Delay passage of a bubble rule indefinitely.

Resolution: Adopt A as the best course for the State of Oregon and negotiate a reconsideration from EPA, Region X staff, in Seattle.

Issue 7: Gasoline Delivery Truck Leak Test

In rule 340-22-137(1)(b) the staff set the permissible leak rate at 1 inch of water pressure loss in five minutes. The staff observed a new truck easily meeting this leak rate. The Department has on file California tests specifying a one inch leak rate. However the EPA Control Technology Guideline Document and model rule allow a 3 inch loss rather than 1 inch. Union Oil submitted a draft of EPA's "Standards of Performance for New Stationary Sources, Bulk Gasoline Terminals", where on page 37 a 3 inch loss in five minutes is allowed. H. R. Solomon of Chevron U.S.A. submitted leak test data for a portion its Southern California fleet, demonstrating inability to meet the 1 inch test with trucks in service (as opposed to new trucks); Chevron testified in favor of a 3 inch rule.

Alternatives

- A. Keep leak test at 1 inch like California;
- B. Relax leak test to 3 inches as advised by EPA and testimony from industry.

Resolution Select B at 3 inches in light of testimony.

Issue 8: Special Treatment of Methanol

Much testimony was received objecting to the way rule 340-22-160(1) singles out methanol for special treatment. Other VOC liquids of true vapor pressure, as stored, less than 1.52 psia, are exempted from this rule. Methanol has a vapor pressure which is less than 1.5 psia in winter, but often exceeds 1.5 psia on hot summer days. Large methanol storage tanks are located at resin manufacturing plants in Albany, Eugene, Coos Bay, La Grande, and White City, but there are none in Portland or Salem. If a statewide rule is not adopted, then all the testimony is moot; the plant in White City (Medford air shed) is capturing emissions from its methanol tanks and did not object to this rule.

Alternatives

- A. Delete reference to methanol in rule 340-22-160(1).
- B. Do not change the rule.

Resolution Select B. If no statewide rule is adopted, there are no objections. If a statewide rule is adopted consider alternative A.

SUMMATION

1. The Department's Volatile Organic Compound rules need to be amended to correct thirteen deficiencies cited by the Environmental Protection



Agency's June 24, 1980 conditional approval of Oregon's State Implementation Plan. The attached, amended rules are proposed to correct these deficiencies.

2. Oregon agreed to adopt in 1980 an additional set of rules to regulate more sources of Volatile Organic Compounds per published federal guideline documents. These proposed rules are:
  - a. Refinery Leaks 340-22-153
  - b. Painting Miscellaneous Parts 340-22-170
  - c. Flat Wood Coating 340-22-200
  - d. Rotogravure and Flexography 340-22-210
  - e. Large Tank Second Seals 340-22-160(4)
  - f. Perc Dry Cleaning 340-22-220
  - g. Tank Truck Leak Tests 340-22-137
3. The large sources of Volatile Organic Compounds are proposed to be added to Table A of 340-20-155, so that standard fees for permits can be charged to cover part of the Department's administrative costs.
4. Two rules are recommended for further staff and industry study before consideration by the Commission.
  - a. a statewide rule affecting major sources (more than 100 tons per year)
  - b. a rule allowing "other VOC pollution control devices" to be turned off in the winter season.
5. After generally favorable testimony, except for EPA's brief negative letter, the staff recommends that the Commission adopt a simple Alternative Control ("bubble concept") rule, 340-22-108.
6. The proposed revised draft of the existing VOC rules will make their numbering conform to that required by the Secretary of State's codifier and will make their meaning more clear.

DIRECTOR'S RECOMMENDATION

Based upon the Summation, it is recommended that the Commission adopt the attached proposed amended rules (OAR 340-22-100 to -220) and the attached proposed amendments to Table A of rule OAR 340-20-155, and direct the Department to submit them to EPA as a revision to the State Implementation Plan.



William H. Young

4 Attachments: Statement of Need and Fiscal Impact Statement  
Proposed rules OAR 340-22-100 to -220  
Proposed rules OAR 340-22-155 Table A  
Hearing Officers Report

PBBosserman:a  
229-6278  
September 5, 1980

## STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(2), this statement provides information on the intended action to amend a rule.

### Legal Authority

ORS 468.020, 468.295(3), 468.065(2), and 468.325

### Need for the Rule

To reduce Volatile Organic Compounds being discharged into the atmosphere where they are causing ozone to form and concentrate in excess of federal (40 CFR 50.9) and state (OAR 340-31-030) ambient air quality standards. The rules require specific types of sources of VOC to install control equipment and/or adopt maintenance and operating practices which will reduce VOC emissions to the atmosphere. Revision of 340-20-155 Table A, permit fees, is necessary to cover part of the Department's cost of administering these rules.

### Principle Documents Relied Upon

1. "Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment," EPA-450/2-78-036, June 1978.
2. "Control of Volatile Organic Emissions from Existing Stationary Sources--Volume VI: Surface Coating of Miscellaneous Metal Parts and Products," EPA-450/2-78-015, June 1978.
3. "Control of Volatile Organic Emission from Manufacture of Vegetable Oils," EPA-450/2-78-035, June 1978.
4. "Control of Volatile Organic Emissions from Existing Stationary Sources--Volume VII: Factory Surface Coating of Flat Wood Paneling," EPA-450/2-78-032, June 1978.
5. "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products," EPA-450/2-78-029, December 1978.
6. "Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires," EPA-450/2-79-030, December 1978.
7. "Control of Volatile Organic Emissions from Existing Stationary Sources--Volume VIII: Graphic Arts--Rotogravure and Flexography," EPA-450/2-78-033, December 1978.
8. "Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks," EPA-450/2-78-047, December 1978.
9. "Control of Volatile Organic Emissions from Perchloroethylene Dry Cleaning Systems," EPA-450/2-78-050, December 1978.

10. "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA-450/2-78-051, December 1978.
11. "Guidance to State and Local Agencies in Preparing Regulations to Control Volatile Organic Compounds from Ten Stationary Source Categories," EPA-450/2-79-004, September 1979.
12. "Approval of Oregon State Implementation Plan; Proposed Rulemaking," Federal Register, January 21, 1980, pp 3929 to 3938, see EPA conditional approval of VOC rules on page 3932 and compliance schedules on page 3933.
13. Letters: Patterson of DEQ to Schultz of EPA Region X on October 5, 1979; Hofer of EPA reply, October 30, 1979; winter idling of VOC controls when no ozone standard violations occur.
14. Agenda Item A2, June 8, 1979, EQC Meeting, Adoption of VOC Rules (OAR 340-22-100 to -150) as Amendments to the SIP.
15. EPA October 4, 1979, Memo, "Clarification for Final SIP Actions on Asphalt Regulations," from Richard G. Rhoads, Director of Control Programs Development Division, to Director, Air and Hazardous Materials Division, Regions I-X.
16. Seton, Johnson and Odell, letter March 4, 1980, Glen Odell to Peter Bosserman, suggested changes to Miscellaneous Painting Rule.
17. EPA May 4, 1979, Memo, "Need for Emission Offsets in Rural O<sub>3</sub> Nonattainment Areas," from Richard G. Rhoads, to Thomas Devine, Director, Air and Hazardous Materials Division, Region IV.
18. DEQ Memo, Bosserman to Kowalczyk, February 25, 1980, "Source of Costs and VOC Reductions."
19. Agenda Item E, April 18, 1980, EQC Meeting, "Request for Authorization to Conduct a Public Hearing to Amend the State Implementation Plan Regarding Volatile Organic Compound Rules and Permit Fee Rules (340-22 and 340-20-155)".
20. Memorandum to the Environmental Quality Commission from Kessler and Bosserman, "Summary of May 21, 1980, Hearing Testimony Regarding Changes and Additions to VOC Rules, OAR 340-22-100 to -220 and to Permit Fees OAR 340-20-155."
21. "Oregon; Approval and Promulgation of the Implementation Plan," Federal Register, June 24, 1980, pp 42265 to 42279.
22. EPA memo, G. T. Helms to Jim Sydnor, December 21, 1979, Telephone Conference on State of Virginia VOC Regulations.

Fiscal Impact Statement

The regulated sources would have to pay permit fees per the attached additions to Table A in OAR 340-20-155(1).

The rule amendments would force certain medium size gasoline stations to install about \$1,000 of equipment where they were formerly exempt.

Any industries with large conveyerized degreasers would have to add carbon absorption or equivalent for about \$100,000 to capture escaping VOC vapors. The staff has not yet found any industries affected.

The cost impacts of the added VOC rules are detailed in the control technology guidelines documents, documents 1 through 10 above. A summary of the costs of Oregon industry and commerce, and the VOC reductions realized, are listed in the Department's memorandum to the EQC, September 19, 1980, recommending adoption of these rules. Typical examples are offered here:

1. Refinery Leaks, one small refinery, estimate one tenth the cost of the medium size refinery costed by EPA, \$11,500 per year.
2. Misc. Painting, switch to waterborne coatings, manual two-coat operation, medium size 8,000,000 square feet per year painted, \$41,000 per year.
3. Vegetable Oil--EPA withdrew requirement, no plants in Oregon.
4. Flat Wood Coating, two plants in Medford, \$200,800 per year for 2 shifts, 4,000,000 panel per year, shifting to waterborne coatings.
5. Pharmaceuticals--no processes of this type in Oregon.
6. Rubber Tires--no processes of this type in Oregon.
7. Rotogravure and Flexography, carbon absorber, 3860 tons ink per year, 1,200 ppm, \$72,800 per year.
8. Large Tank Second Seals, 55,000 barrel external floating roof tank, rim mounted secondary seal, \$3,300 per year per tank.
9. Perc Dry Cleaning, commercial plant, 11 kilogram washer load capacity, add carbon absorber, \$500 per year net cost.
10. Tank truck leak tests, EPA did not provide costs, P. Bosserman estimate: \$500 annual test fee, downtime penalty \$300, hardware and labor fix up cost \$500 per year average; \$1,300 per year truck annualized cost.

Proposed Draft of Changes and Additions to Oregon Administrative Rules, Chapter 340, Affecting Volatile Organic Compounds (VOC)

Introductory Note: Changes and additions are underlined. Deleted portions are bracketed. Rule numbers changes are the same as being done by the Oregon Secretary of State's codifier.

Add to Table A in 340-20-155(1) which requires permits of sources listed in Table A:

Air Contaminant Source, SIC	Application Processing Fee	Compliance Determination Fee
<u>Permits are required for sources 64 thru 72 in the Portland and Medford AQMA's and the Salem SATS.</u>		
64. <u>Bulk Gasoline Plants</u> <u>5100</u>	55	150
65. <u>Bulk Gasoline Terminals</u> <u>5171</u>	1000	500
66. <u>Liquid Storage,</u> <u>tanks 39,000 gallons</u> <u>or more capacity</u> <u>(not elsewhere included)</u> <u>4200</u>	50 per tank	100 per tank
67. <u>Can Coating</u> <u>3411</u>	1500	900
68. <u>Paper Coating</u> <u>2641 or 3861</u>	1500	900
69. <u>Coating Flat Wood</u> <u>2400</u>	500	300
70. <u>Surface Coating,</u> <u>Manufacturing</u>		
a) 1-20 tons VOC/yr	25	85
b) 20-100 tons VOC/yr	100	200
c) over 100 tons VOC/yr	500	400
<u>3300, 3400, 3500, 3600, 3700, 3800, 3900</u>		
71. <u>Flexographic or</u> <u>Rotogravure Printing,</u> <u>over 60 tons VOC/yr--per plant</u> <u>2751 or 2754</u>	50 per press	150 per press

72. New sources of VOC not listed \*\*\*\* \*\*\*\*  
herein which have the capacity  
or are allowed to emit 10 or  
more tons per year of VOC.

Air Contaminant Source, SIC	Standard Industrial Classification Number
10. Sawmill and/or plan[ing]	2421
28. Synthetic resin manufacturing	28[19] <u>21</u>
36. Blending, compounding or <u>re-</u> refining of lubricating oils and greases	2992
44. Incinerators a) 1000 lbs/hr and greater capacity b) 40 lbs/hr to 1000 lbs/hr capacity	<u>4953</u>
55. Electric power generation	4911 *
58. [2] b) 5 million or more but less than 250 m[x] <u>i</u> llion BTU/hr (heat input)	4961**
61. New sources not listed [above] <u>herein</u> which would emit 10 or more tons per year of any air contaminants including but not limited to particulates, SO <sub>x</sub> or NO <sub>x</sub> [ <del>or hydrocarbons</del> ], if the source were to operate uncontrolled.	****
62. New sources not listed [above] <u>herein</u> which would emit significant malodorous emissions, as determined by Departmental or Regional Authority review of sources which are known to have similar air contaminant emissions.	****
63. Existing sources not listed [above] <u>herein</u> **** for which an air quality problem is identified by the Department or Regional Authority	****

(2) A6327.B4 9/05/80

## General Emission Standards for Volatile Organic Compounds

### OAR 340-22-100 Introduction

- (1) These rules regulate sources of VOC which contribute to the formation of photochemical oxidant, mainly ozone.
- (2) Since ~~[oxidant]~~ ozone standards are not violated in Oregon from November through March (because of insufficient solar energy), ~~[these rules allow control devices]~~ natural gas-fired afterburners may be permitted, on a case-by-case basis, to lay idle during the winter months. [Since much of the state is considered in attainment with ozone standards, sources in "clean" areas are exempted from these rules.]
- (3) Sources regulated by these rules are:
  - a. New Sources ~~[over 100 tons of VOC per year]~~ and all existing sources in the Portland and Medford AQMA's and in the Salem SATS for categories b thru m below.
  - b. Gasoline stations, underground tank filling
  - c. Bulk Gasoline Plants and Delivery Vessels
  - d. Bulk Gasoline Terminal Loading
  - e. Cutback Asphalt
  - f. Petroleum Refineries, Petroleum Refinery Leaks
  - g. VOC Liquid Storage, Secondary Seals
  - h. Coating including paper coating and misc. painting
  - i. Degreasers
  - j. Asphaltic and Coal Tar Pitch in Roofing
  - k. Flat wood coating
  - l. Rotogravure and Flexographic Printing
  - m. Perchloroethylene Dry Cleaning

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## Definitions

340-22-~~[100]~~ 102: As used in these regulations, unless otherwise required by context:

- (1) "Air dried coating" means coatings which are dried by the use of air at ambient temperature.
- [7] (2) "Bulk gasoline plant" means a gasoline storage and distribution facility which receives gasoline from bulk terminals by railroad car or trailer transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, businesses, and service stations.
- [8] (3) "Bulk gasoline terminal" means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck.
- (4) "Carbon Bed Breakthrough" means the initial indication of depleted adsorption capacity characterized by a sudden measureable increase in VOC concentration exiting a carbon adsorption bed or column.
- (5) "Certified Underground Storage Device" means vapor recovery equipment for underground storage tanks as certified by the State of California Air Resources Board Executive Orders, copies of which are on file with the Department, or equivalent approval by other air pollution control agencies.
- (6) "Class II hardboard paneling finish" means finishes which meet the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.
- (7) "Clear coat" means a coating which lacks color and opacity or is transparent and uses the undercoat as a reflectant base or undertone color.
- (8) "Coating Line" means one or more apparatus or operations which include a coating applicator, flash-off area, and oven or drying station wherein a surface coating is applied, dried, and/or cured.
- [~~10~~] (9) "Cutback asphalt" means a mixture of a base asphalt with a solvent such as gasoline, naphtha, or kerosene. Cutback asphalts ~~[can be]~~ are rapid, medium, or slow curing (known as RC, MC, SC), as defined in ASTM D2399.

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- (10) "Day" means a 24-hour period beginning at midnight.
- [(9)] (11) "Delivery vessel" means any tank truck or trailer used for the transport of gasoline from sources of supply to stationary storage tanks. [~~of-gasoline-dispensing facilities-and-the-attached-vapor-recovery-system.~~]
- (12) "Dry cleaning facility" means any facility engaged in the cleaning of fabrics in an essentially nonaqueous solvent by means of one or more washes in solvent, extraction of excess solvent by spinning, and drying by tumbling in an airstream. The facility includes but is not limited to any washer, dryer, filter and purification systems, waste disposal systems, holding tanks, pumps, and attendant piping and valves.
- (13) "Extreme performance coatings" means coatings designed for extreme environmental conditions such as exposure to any one of the following: the weather all of the time, temperatures consistently above 95°C, detergents, abrasive and scouring agents, solvents, corrosive atmosphere, or similar environmental conditions.
- (14) "Flexographic Printing" means the application of words, designs and pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.
- [(11)] (15) "Freeboard ratio" means the freeboard height divided by the width (not length) of the degreaser's air/solvent area.
- (16) "Forced air dried coating" means a coating which is dried by the use of warm air at temperatures up to 90° C (194° F).
- [(5)] (17) "Gasoline" means any petroleum distillate having a Reid vapor pressure of 27.6 kPa (4.0 psi) or greater which is used to fuel internal combustion engines.
- [(12)] (18) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle, boat, or airplane gasoline tanks from stationary storage tanks.
- (19) "Gas service" means equipment which processes, transfers or contains a volatile organic compound or mixture of volatile organic compounds in the gaseous phase.
- (20) "Hardboard" is a panel manufactured primarily from inter-felted ligno-cellulosic fibers which are consolidated under heat and pressure in a hot press.

(21) "Hardwood plywood" is plywood whose surface layer is a veneer of hardwood.

(22) "LAER" means the rate of emissions which reflects

(A) the most stringent emission limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or not maintainable for the proposed source or

(B) the most stringent emission limitation which is achieved and maintained in practice by such class or category of source, whichever is more stringent.

In no event shall the application of LAER allow a proposed new or modified source to emit any pollutant in excess of the amount allowable under applicable new source standards of performance (OAR 340-25-535).

(23) "Leaking component" means any petroleum refinery source which has a volatile organic compound concentration exceeding 10,000 parts per million (ppm) when tested in the manner described in method 31 and 33 on file with the Department. These sources include, but are not limited to, pumping seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open-ended pipes. Excluded from these sources are valves which are not externally regulated.

(24) "Liquid service" means equipment which processes, transfers or contains a volatile organic compound or mixture of volatile organic compounds in the liquid phase.

[ (3) ] (25) "Modified" means any change in the method of operation of, or addition to, or physical change of a stationary source which increases the [potential] allowable emission rate of any VOC regulated (including any not previously emitted and taking into account all accumulated increases in [potential] allowable emissions occurring at the source since regulations were adopted under this section, or since the time of the last construction approval was issued for the source pursuant to such regulations approved under this section, whichever time is more recent, regardless of any emission reductions achieved elsewhere in the source).

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[~~(i)~~] (a) A physical change shall not include routine maintenance, repair and replacement, unless there is an increase in emission.

[~~(ii)~~] (b) A change in the method of operation, unless previously limited by enforceable permit conditions, shall not include:

[~~(a)~~] (A) An increase in the production rate, if such [~~increase~~] does not involve a physical change or exceed [the-operating-design-capacity of-the-source] permit limits;

[~~(b)~~] (B) An increase in the hours of operation;

[~~(c)~~] (C) Use of an alternative fuel or raw material by reason of an order in effect under sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation), or by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act;

[~~(d)~~] (D) Use of an alternative fuel or raw material, if prior to January 6, 1975, the source was capable of accommodating such fuel or material; or

[~~(e)~~] (E) Use of an alternative fuel by reason of any order or rule under Section 125 of the Federal Clean Air Act, 1977;

[~~(F)~~] (F) Change in ownership of the source.

(26) "Natural finish hardwood plywood panels" means panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

[~~(13)~~] (27) "Operator" means any person who leases, operates, controls, or supervises a facility at which gasoline is dispensed.

[~~(14)~~] (28) "Owner" means any person who has legal or equitable title to the gasoline storage tanks at a facility.

(29) "Packaging rotogravure printing" means rotogravure printing upon paper, paper board, metal foil, plastic film, and other substrates, which are, in subsequent operations, formed into packaging products and labels for articles to be sold.

(30) "Person" means the federal government, any state, individual, public, or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatsoever.

(31) "Petroleum refinery" means any facility engaged in producing gasoline, aromatics, kerosene, distillate fuel oils, residual fuel oils, lubricants, asphalt, or other products through distillation of petroleum, crude oil, or through redistillation, cracking, or reforming of unfinished petroleum derivatives. "Petroleum refinery" does not mean a re-refinery of used motor oils or other waste chemicals. "Petroleum refinery" does not include asphalt blowing or separation of products shipped together.

[~~(4) -- "Potential-to-emit" means the capability at maximum capacity to emit a pollutant in the absence of air pollution control equipment. -- "Air pollution control equipment" includes control equipment which is not, aside from air pollution control laws and regulations, vital to production of the normal product of the source or its normal operation. -- Annual potential shall be based on the maximum annual rated capability of the source, unless the source is subject to enforceable permit conditions which limit annual hours of operation. -- Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the potential emission rate of a source.]~~

(32) "Plant site basis" means all of the sources on the premises (contiguous land) covered in one Air Contaminant Discharge Permit unless another definition is specified in a Permit.

(33) "Printed interior panels" means panels whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed.

(34) "Printing" means the formation of words, designs and pictures, usually by a series of application rolls each with only partial coverage.

(35) "Publication rotogravure printing" means rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

(36) "Roll printing" means the application of words, designs and pictures to a substrate by means of hard rubber or steel rolls.

[42] (37) "Stationary Source" means any structure, building, facility, or [equipment] installation, [or operation (or combination thereof) which is located on one or more contiguous or adjacent properties, which is owned or operated by the same person (or persons under common control), and] which emits or may emit any VOC. ["Source" does not include VOC pollution control equipment.]

[45] (38) "Splash filling" means the filling of a delivery vessel or stationary storage tanks through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.

(39) "Structure, building, facility, or installation" means any grouping of pollutant-emitting activities which are located on one or more contiguous or adjacent properties and which are owned or operated by the same person (or by persons under common control).

[46] (40) "Submerged fill" means [the filling of a delivery vessel or stationary tank through a pipe or hose whose discharge opening extends to within 6 inches of the bottom or is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid.] any fill pipe or hose, the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean any fill pipe, the discharge of which is entirely submerged when the liquid level is 18 inches or is twice the diameter of the fill pipe, whichever is greater, above the bottom of the tank.

(41) "Thin particleboard" is a manufactured board 1/4 inch or less in thickness made of individual wood particles which have been coated with a binder and formed into flat sheets by pressure.

(42) "Tileboard" means panelling that has a colored waterproof surface coating.

(43) "True Vapor Pressure" means the equilibrium pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from Floating Roof Tanks," 1962.

[416] (44) "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

[417] (45) "Volatile Organic Compound," (VOC), means any compound of carbon that has a vapor pressure greater than 0.1 mm of Hg at standard conditions (temperature 20°C, pressure 760 mm of Hg). Excluded from the category of Volatile Organic Compounds are carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and those compounds which the U.S. Environmental Protection Agency classifies as being of negligible photochemical reactivity which are methane, ethane, methyl chloroform, methylene chloride, and trichlorotrifluoroethane.

#### LIMITATIONS AND REQUIREMENTS

##### GENERAL REQUIREMENTS FOR NEW AND EXISTING SOURCES

OAR 340-22-104

- (1) Notwithstanding the emission limitation in these rules, all new or modified stationary sources, located within the areas cited in (2) below, with allowable VOC emission increases in excess of 90,720 kilograms (100 tons) per year, shall meet the Lowest Achievable Emission Rate (LAER).
- (2) All new and existing sources inside the following areas shall comply with the General Emission Standards for Volatile Organic Compounds:
  - (a) Portland-Vancouver Air Quality Maintenance Area
  - (b) Medford-Ashland Air Quality Maintenance Area
  - (c) Salem Area Transportation Study (SATS) Area
- (3) VOC sources located outside the areas cited in (2) above are exempt from the General Emission Standards for Volatile Organic Compounds.

[Lowest-Achievable-Emission-Rate]

[OAR-340-22-104-in-areas-where-these-rules-for-VOC-are applicable, all-new-or-modified-sources, with-potential-volatile organic-compound-emissions-in-excess-of-90,720-kilograms-(100 tons)-per-year, shall-meet-the-Lowest-Achievable-Emission-Rate (LAER).]

[Lowest-Achievable-Emission-Rate-or-LAER-means-the-rate-of emissions-which-reflects]

[(A) The-most-stringent-emission-limitation-which-is-contained in-the-implementation-plan-of-any-state-for-such-class-or category-of-source, unless-the-owner-or-operator-of-the proposed-source-demonstrates-that-such-limitations-are-not achievable, or-not-maintainable-for-the-proposed-source or]

[(B) The-most-stringent-emission-limitation-which-is-achieved and-maintained-in-practice-by-such-class-or-category-of source, whichever-is-more-stringent.]

[In-no-event-shall-the-application-of-LAER-allow-a-proposed-new or-modified-source-to-emit-any-pollutant-in-excess-of-the-amount allowable-under-applicable-new-source-standards-of-performance (OAR-340-25-525).]

Exemptions

OAR 340-22-[105] 106 Natural gas-fired afterburners installed for the purpose of complying with these rules shall be operated during the months of April, May, June, July, August, September, and October. During other months, the afterburners may be turned off with prior written Departmental approval, provided that the operation of such devices is not required for purposes of occupational health or safety, or for the control of toxic substances, malodors, or other regulated pollutants, or for complying with visual air contaminant limitations.

[OAR-340-22-106-sources-are-exempted-from-the-General-Emission Standards-for-Volatile-Organic-Compounds-if-they-are-outside the-following-areas:

- 1) Portland-Vancouver-Air-Quality-Maintenance-Area
- 2) Medford-Ashland-Air-Quality-Maintenance-Area
- 3) Salem-Area-Transportation-Study-Boundary]

[Testing] Compliance Determination

340-22-107

- (1) Certification and Test procedures are listed in each specific section and on file with the Department [~~and are partly the certification and test procedures used by the California Air Resources Board as of August 9, 1978~~]. Applicants are encouraged to submit designs approved by [~~the California Air Resources Board, the Bay Area Air Quality Management District, the South Coast Air Quality Management District, or the San Diego County Air Pollution District~~] other air pollution control agencies where VOC control equipment has been developed. Construction approvals and proof of compliance will, in most cases, be based on Departmental evaluation of the source and controls.
- (2) The person responsible for an existing emission source [~~subject to 340-22-100 through 340-22-150~~] shall proceed promptly with a program to comply as soon as practicable with these rules. A proposed program and implementation plan including increments of progress shall be submitted to the Department for review no later than May 1, 1979, for each emission source required to comply with VOC rules adopted by the Commission on December 15, 1978. For sources required to comply with the VOC rules amended by the Commission on June 8, 1979, compliance schedules shall be submitted no later than October 1, 1979. See the following table for later compliance dates. Compliance shall be demonstrated no later than the date specified in the individual sections of these rules and as shown below. The Department shall within 45 days of receipt of a complete proposed program and implementation plan, complete an evaluation and advise the applicant of its approval or other findings.
- (3) The following compliance schedule increments of progress shall be completed:

<u>340-22 Rule Section</u>	<u>Submit Plans to Dept.</u>	<u>Purchase Orders</u>	<u>Begin Construction</u>	<u>Complete Construction</u>	<u>Demonstrate Compliance</u>
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<u>-110</u> <u>Gasoline dispensing (a)</u>	<u>10/01/79</u>	<u>12/31/80</u>	<u>03/15/81</u>	<u>04/01/81</u>	<u>04/01/81</u>
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<u>340-22 Rule Section</u>	<u>Submit Plans to Dept.</u>	<u>Purchase Orders</u>	<u>Begin Construction</u>	<u>Complete Construction</u>	<u>Demonstrate Compliance</u>
<u>-120</u>					
<u>Bulk plants (a)</u>	<u>10/01/79</u>	<u>07/01/80</u>	<u>12/31/80</u>	<u>04/01/81</u>	<u>04/01/81</u>
<u>-130</u>					
<u>Gasoline terminals</u>	<u>05/01/79</u>	<u>04/01/80</u>	<u>12/01/80</u>	<u>04/01/81</u>	<u>04/01/81</u>
<u>(a)-110,-120</u>					
<u>vapor balance newly req'd. Sept. 19, 1980</u>	<u>10/01/82</u>	<u>12/31/82</u>	<u>03/15/83</u>	<u>04/01/83</u>	<u>04/01/83</u>
<u>-137</u>					
<u>Delivery vessel</u>	<u>11/01/80</u>	<u>11/20/80</u>	<u>02/15/81</u>	<u>03/01/81</u>	<u>04/01/81</u>
<u>-140</u>					
<u>Cutback asphalt</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>04/01/79</u>
<u>(4) Emulsified specs</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>04/01/81</u>
<u>-150, -153</u>					
<u>Oil refinery</u>	<u>11/01/80</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>10/01/80</u>
<u>-160</u>					
<u>Liquid storage, Secondary seals</u>	<u>10/01/79</u>	<u>12/01/80</u>	<u>02/01/81</u>	<u>04/01/81</u>	<u>04/01/81</u>
	<u>11/01/80</u>	<u>01/02/81</u>	<u>07/01/81</u>	<u>12/31/81</u>	<u>12/31/81</u>
<u>-170</u>					
<u>Surface coating:</u>					
<u>Can &amp; paper coating, misc products &amp; metal parts</u>	<u>05/01/79</u>	<u>11/01/81</u>	<u>05/01/82</u>	<u>12/01/82</u>	<u>12/31/82</u>
	<u>07/01/81</u>	<u>10/01/81</u>	<u>07/02/82</u>	<u>11/01/82</u>	<u>12/31/82</u>
<u>-180</u>					
<u>Degreasers: Operating procedures, Add-on controls</u>	<u>05/01/79</u>	<u>10/01/79</u>	<u>02/01/80</u>	<u>04/01/80</u>	<u>04/01/80</u>
	<u>11/01/80</u>	<u>04/01/81</u>	<u>07/01/81</u>	<u>01/02/82</u>	<u>04/01/82</u>
<u>-190</u>					
<u>Roofing tar</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>04/01/80</u>
<u>-200</u>					
<u>Flatwood coating</u>	<u>11/01/80</u>	<u>01/02/81</u>	<u>01/02/82</u>	<u>11/01/82</u>	<u>12/31/82</u>
<u>-210</u>					
<u>Printing roto &amp; flex</u>	<u>11/01/80</u>	<u>04/01/81</u>	<u>09/01/81</u>	<u>04/01/82</u>	<u>07/01/82</u>
<u>-220</u>					
<u>Perc dry cleaning</u>	<u>11/01/80</u>	<u>02/01/81</u>	<u>04/01/81</u>	<u>10/01/81</u>	<u>01/01/82</u>

Applicability of Alternative Control Systems

340-22-108

- (1) A source may install and operate alternative control systems or changes in process on a plant site basis and be exempt from these rules provided:
  - (a) An application for an alternative control system is submitted in writing; and,
  - (b) An application and supporting documentation demonstrates that the volatile organic compound reduction in emissions is equal to or greater than that required by the General Emission Standards for Volatile Organic Compounds; and,
  - (c) Approval is granted in writing by the Department.
  - (d) The alternative control system is approved by the Environmental Protection Agency.
- (2) Alternative Control Systems shall be approved for a specified period of time, however, such approval shall not exempt the source from complying with subsequent rule modifications or air quality control strategies required, provided further the source may provide new alternative control systems to meet the new promulgation or requirements.

(14) A6327.B4 9/05/80

Small Gasoline Storage [~~Tanks (Under 40,000 Gallons Capacity)~~]

340-22-110

- (1) No person may transfer or cause or allow the transfer of gasoline from any delivery vessel which was filled at a Bulk Gasoline Terminal or nonexempted Bulk Gasoline Plant into any stationary storage tank [unless:

~~(a) -- The tank is filled by submerged fill.~~

~~(b) -- The displaced vapors from the tank are:~~

~~(i) -- Transferred to the delivery vessel by means of a vapor balance system that prevents release to the atmosphere of no less than 90 percent by weight of the vapors displaced.~~

~~(ii) -- Processed by a vapor control system that prevents release to the atmosphere of no less than 90 percent by weight of the vapors displaced.~~

~~(iii) -- Processed by a system demonstrated to the satisfaction of the Department to be of equivalent effectiveness to (i) and (ii) above.~~

~~(c) -- The tank is equipped with a system to ensure that the vapor capture return line will be connected during transfer.]~~

of less than 40,000 gallon capacity unless:

(a) The tank is filled by Submerged Fill, and

(b) A vapor recovery system is used which consists of a Certified Underground Storage Tank Device Capable of collecting the vapor from volatile organic liquids and gases so as to prevent their emission to the outdoor atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place, or

(c) The vapors are processed by a system demonstrated to the satisfaction of the Department to be of equal effectiveness.

- (2) Exemptions. This section will not apply to:
- (a) Transfers made to storage tanks of gasoline dispensing facilities equipped with floating roofs or their equivalent.
  - (b) Stationary gasoline storage containers of less than 2,085 liters (550 gallons) capacity used exclusively for the fueling of implements of ~~[husbandry]~~ farming, provided the containers use submerged fill.
  - (c) Stationary gasoline storage tanks located at a gasoline dispensing facility that are filled by a delivery vessel which was filled at an exempted bulk gasoline plant provided that the storage tanks use submerged fill. However, in the Portland-Vancouver AQMA, no person shall deliver gasoline to a [source] gasoline dispensing facility at a rate exceeding [240,000-gallons per-year] 10,000 gallons per month from a bulk gasoline plant, unless [90-percent-by-weight-of the-gasoline-vapors-displaced-during-the-filling-of-the-delivery-truck-and-during-the-filling-of the-source's-tank(s)-are-prevented-from-being released-to-the-atmosphere.] the gasoline vapor is handled as required by rule 340-22-110(1)(a), (b) or (c).
- (3) The owner, operator, or builder of any stationary storage container subject to 340-22-110 shall comply by April 1, 1981, except where added equipment is required by rule changes adopted in 1980, compliance is delayed to April 1, 1983.
- (4) Compliance with 340-22-110(1)(b) shall be determined by verification of use of equipment identical to equipment most recently approved and listed for such use by the Department or by testing in accordance with Method 30 on file with the Department. [This method may be revised by the Department for improvement based upon experience and new data. -- However, no revision shall apply to a compliance test scheduled prior to the making of the revision, unless the owner concurs.]

[Bulk Gasoline Plants and Delivery Vessels

340-22-115

- (1) No person shall transfer or allow the transfer of gasoline to or from a bulk gasoline plant unless:
  - (a) Each stationary storage tank is equipped with a submerged fill line.
  - (b) The displaced vapors from filling each stationary gasoline storage tank are:
    - (i) Processed by a vapor control system or a vapor balance system that prevents release to the atmosphere of no less than 90 percent by weight of the vapors displaced; or
    - (ii) Processed by a system demonstrated to the satisfaction of the Department to be of equivalent effectiveness to (i) above.
  - (c) All connections or fitting to vapor lines, connecting pipes or hoses on the storage tank or loading or unloading delivery vessel are vapor tight and will automatically and immediately close when disconnected.
  - (d) Each stationary gasoline storage tank is equipped with pressure relief valves set to release at no less than 3.4 kPa (.50 psi) or some other setting approved in writing by the Department.
  - (e) Each delivery vessel loaded at a bulk gasoline plant is filled by submerged filling.
  - (f) Each delivery vessel is unloaded in a manner that hatches are not opened at any time during unloading except where necessary for the proper operation of the vapor recovery system.
  - (g) Gasoline is handled in a manner to prevent spillage, discharging into sewers, storage in open containers, or handled in any other manner that would result in evaporation. If an accident occurs, it shall be reported in accordance with 340-21-065 to -075.
  - (h) The vapor-laden delivery vessel is designed and maintained to be vapor tight at all times.]

(17)

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*See next page  
Rewritten*

Bulk Gasoline Plants and Delivery Vessel(s)

340-22-120

- (1) No person shall transfer or allow the transfer of gasoline to or from a bulk gasoline plant unless:
- (a) Each stationary storage tank and each delivery vessel uses submerged fill when transferring gasoline;
  - (b) The displaced vapors from filling each tank and each delivery vessel are prevented from being released to the atmosphere through use of a vapor tight vapor balance system, or equivalent system as approved in writing by the Department. Exceptions and limitations are as follows in (c), (d), and (e).
  - (c) If a bulk gasoline plant which is located in the Portland AQMA, transfers less than 4,000 gallons of gasoline per day (annual through-put divided by the days worked), capture of displaced vapors during the filling of delivery vessel(s) and the bulk plant's customers are exempt from 340-22-110(1)(b) and (c). If a bulk gasoline plant is located in the Medford-Ashland AQMA, or in the Salem SATS, capture of displaced vapors during the filling of delivery vessel(s) from the bulk plant is exempt from 340-22-120(1)(b) and the bulk plant's customers are exempt from 340-22-110(1)(b) and (c).
  - (d) Each stationary gasoline storage tank may release vapor to the atmosphere through a pressure relief valve set to release at no less than 3.4 kPa (.50 psi) or some other setting approved in writing by the Department.
  - (e) Gasoline is handled in a manner to prevent spillage, discharging into sewers, storage in open containers, or handled in any other manner that would result in evaporation. If more than five gallons are spilled, the operator shall report the spillage in accordance with 340-21-065 to -075.
- (2) The owner(s) or operator(s) of bulk gasoline plants and delivery vessels subject to 340-22-120 shall comply with the provisions of this rule by April 1, 1981, except where added equipment is required by rule changes adopted in 1980, compliance is delayed to April 1, 1983.

(3) Compliance with 340-22-120(1)(b) shall be determined by verification of use of equipment approved by the Department and/or by testing and monitoring in accordance with applicable portions of 340-22-137 and/or Method 31 and/or 32 on file with the Department.

(4) The owner or operator of a gasoline delivery vessel shall maintain the vessel to be vapor tight at all times, in accordance with 340-22-137(1), if such vessel is part of a vapor balance system required by these rules.

## Bulk Gasoline Terminals

340-22-~~120~~ 130 (1)

After April 1, 1981, no ~~person~~ terminal owner or operator, shall ~~cause~~ allow volatile organic compounds (VOC) to be emitted into the atmosphere in excess of 80 milligrams of VOC per liter of gasoline loaded from the operation of loading truck tanks, and truck trailers at bulk gasoline terminals with daily throughputs of greater than 76,000 liters (20,000 gallons) per day of gasoline. The daily throughputs are the annual throughput divided by 365 days.

- (a) The owner or operator of a gasoline loading terminal shall only allow the transfer of gasoline between the facility and a truck tank or a truck trailer when a current leak test certification for the delivery vessel is on file with the terminal or a valid inspection sticker is displayed on the delivery vessel.
- (b) The owner or operator of a truck tank or a truck trailer shall not make any connection to the terminal's gasoline loading rack unless the gasoline delivery vessel has been tested in accordance with OAR 340-22-137(1).

~~340-22-121~~ (2)

Compliance with 340-22-~~120~~ 130 shall be determined by testing in accordance with Method 33 on file with the Department. ~~[This method may be revised by the Department for improvement based upon experience and new data. However, no revision shall apply to a compliance test scheduled prior to the making of the revision, unless the owner concurs.]~~

~~340-22-122~~ (3)

Bulk Gasoline terminals shall comply with the following within the limits of 340-22-130(1):

- ~~41~~ (a) All displaced vapors and gases during tank truck gasoline loading operations are vented only to the vapor control system, except ~~[as permitted in writing by the Department.]~~ when gasoline delivery vessels are switched to diesel delivery service or to delivery of other VOC with Reid vapor pressure less than 4.0 psia.
- ~~42~~ (b) The loading device must not leak when in use. The loading device shall be designed and operated to allow no more than 10 cubic centimeters drainage per

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disconnect on the basis of five consecutive disconnects.

- [43] (c) All loading and vapor lines are equipped with fittings which make vapor-tight connections and which close automatically and immediately when disconnected.
- [44] (d) Gasoline is handled in a manner to prevent its being discarded in sewers or stored in open containers or handled in any manner that would result in evaporation. If ~~[an-accident-occurs,-it-shall-be reported]~~ more than 5 gallons are spilled, the operator shall report the spillage in accordance with 340-21-065 to .-075.
- [45] (e) The vapor collection system is operated in a manner to prevent the pressure~~[in-the-vapor-collection-system to-exceed]~~ therein from exceeding the tank truck or trailer pressure relief settings.

#### TESTING VAPOR TRANSFER AND COLLECTION SYSTEMS

340-22-137

- (1) After April 1, 1981, no person shall allow a vapor-laden delivery vessel subject to 340-22-120(4) to be filled or emptied unless the delivery vessel:
- (a) Is tested annually according to the test method 32 on file with the Department.
- (b) Sustains a pressure change of no more than 750 pascals (3 in. of H<sub>2</sub>O) in 5 min when pressurized to a gauge pressure of 4,500 pascals (18 in. of H<sub>2</sub>O) or evacuated to a gauge pressure of 1,500 pascals (6 in. of H<sub>2</sub>O) during the testing required in subsection (1)(a) of this rule; and
- (c) Displays a sticker near the Department of Transportation Certification plate required by 49 CFR 178.340-10b, which:
- (A) Shows the year and month that the gasoline tank truck last passed the test required in sections (1)(a) and (b) of this rule;
- (B) Shows the identification of the sticker; and,
- (C) Expires not more than one year from the date of the leak-test test.

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(2) After April 1, 1981, the owner or operator of a vapor collection system subject to this regulation shall design and operate the vapor collection system and the gasoline loading equipment in a manner that prevents:

(a) Gauge pressure from exceeding 4,500 pascals (18 in. of H<sub>2</sub>O) and vacuum from exceeding 1,500 pascals (6 in. of H O) in the gasoline tank truck being loaded; 2

(b) A reading equal to or greater than 100 percent of the lower explosive limit (LEL, measured as propane) at 2.5 centimeters from all points on the perimeter of a potential leak source when measured by the method 31 and 33 on file with the Department, or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals; and

(c) Visible liquid leaks during loading or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals.

(3) The Department may, at any time, monitor a gasoline tank truck, vapor collection system, or vapor control system, by the methods on file with the Department, to confirm continuing compliance with sections (1) or (2) of this rule.

#### RECORDKEEPING AND REPORTING

(4) The owner or operator of a source of volatile organic compounds subject to this regulation shall maintain records of all certification testing and repairs. The records must identify the gasoline tank truck, vapor collection system, or vapor control system; the date of the test or repair; and, if applicable, the type of repair and the date of retest. The records must be maintained in a legible, readily available condition for at least two years after the date of testing or repair was completed.

(5) Copies of all records and reports under rule 340-22-130(4) and (5) shall immediately be made available to the Department, upon verbal or written request, at any reasonable time.

CUTBACK AND EMULSIFIED ASPHALT

340-22-[125] 140

- (1) After April 1, 1979, ~~[all-uses-and-applications]~~ use of any cutback asphalt ~~[s]~~ for paving roads & parking areas ~~[a&e]~~ is prohibited during the months of April, May, June, July, August, September, and October, except as provided for in 340-22-[125] 140 (2).
- (2) ~~[The-following-uses-and-applications-of-cutback-asphalts shall-be-allowed-during-all-months-provided-the-cutback or-blending-petroleum-distillate-has-a-total-vapor-pressure (sum-of-the-partial-pressures-of-the-constituents)-less than-26mm-of-Hg-at-20°C:]~~ Slow curing (SC) and medium curing (MC) cutback asphalts are allowed during all months for the following uses and applications:
- (a) Solely as a penetrating prime coat for aggregate bases prior to paving;
  - (b) For the manufacture of medium-curing patching mixes to provide long-period storage stockpiles used exclusively for pavement maintenance; or,
  - (c) For all uses when the National Weather Service forecast of the high temperature during the 24-hour period following application is below 10°C (50°F).
- (3) Rapid curing (RC) grades of cutback asphalt are always prohibited.
- (4) Use of emulsified asphalts is unrestricted if solvent content is kept at or less than the limits listed below. If these limits are exceeded, then the asphalt shall be classified as medium curing (MC) cutback asphalts, and shall be limited to only the uses permitted by 340-22-140(2).

<u>Grades of Emulsion Per</u>	<u>Maximum Solvent</u>
<u>AASHTO Designation M 208-72</u>	<u>Content by Weight</u>

(a)	CRS-1	3%
(b)	CRS-2	3%
(c)	CSS-1	3%
(d)	CSS-1h	3%
(e)	CMS-2	8%
(f)	CMS-2h	8%
(g)	CMS-2S	12%

Solvent content is determined by ASTM distillation test D-244.

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## PETROLEUM REFINERIES

340-22-[130] 150

After April 1, 1979, these regulations shall apply to all petroleum refineries.

### (1) Vacuum-Producing Systems

- (a) Noncondensable VOC from vacuum-producing systems shall be piped to an appropriate firebox, incinerator, or to a closed refinery system.
- (b) Hot wells associated with contact condensers shall be tightly covered and the collected VOC introduced into a closed refinery system.

### (2) Wastewater Separators

- (a) Wastewater separators forebays shall incorporate a floating pontoon or fixed solid cover with all openings sealed totally enclosing the compartmented liquid contents, or a floating pontoon or double deck-type cover equipped with closure seals between the cover edge and compartment wall.
- (b) Accesses for gauging and sampling shall be designed to minimize VOC emissions during actual use. All access points shall be closed with suitable covers when not in use.

### (3) Process Unit Turnaround

- (a) The VOC contained in a process unit to be depressurized for turnaround shall be introduced to a closed refinery system, combusted by a flare, or vented to a disposal system.
- (b) The pressure in a process unit following depressurization for turnaround shall be less than 5 psig before venting to the ambient air.

### (4) Maintenance and Operation of Emission Control Equipment

Equipment for the reduction, collection, or disposal of VOC shall be maintained and operated in a manner commensurate with the level of maintenance and housekeeping of the overall plant.

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## PETROLEUM REFINERY LEAKS

340-22-153

(1) After October 1, 1980, all persons operating petroleum refineries shall comply with the following rules concerning leaks:

(a) The owner or operator of a petroleum refinery complex, upon detection of a leaking component, which has a volatile organic compound concentration exceeding 10,000 ppm when tested in the manner described below shall:

(A) Include the leaking component on a written list of scheduled repairs; and,

(B) Repair and retest the component within 15 days.

(b) Except for safety pressure relief valves, no owner or operator of a petroleum refinery shall install a valve at the end of a pipe or line containing volatile organic compounds unless the pipe or line is sealed with a second valve, a blind flange, a plug, or a cap. The sealing device may be removed only when a sample is being taken during maintenance operations.

(c) Pipeline valves and pressure relief valves in gaseous volatile organic compound service shall be marked in some manner that will be readily obvious to both refinery personnel performing monitoring and the Department.

(2) TESTING PROCEDURES:

Testing and calibration procedures to determine compliance with this regulation must be approved by the Department and consistent with Appendix B of "Control of Volatile Organic Compounds Leaks from Petroleum Refinery Equipment," EPA-450/2-78-036.

(3) MONITORING, RECORDKEEPING, REPORTING

(a) The owner or operator of a petroleum refinery shall maintain, as a minimum, records of all testing conducted under this rule; plus records of all monitoring conducted under paragraphs (b) and (c) of this section.

(b) The owner or operator of a petroleum refinery subject to this regulation shall:

(A) Monitor yearly by the methods referenced in 340-22-153 (2) all:

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- (i) Pump seals;
- (ii) Pipeline valves in liquid service; and
- (iii) Process drains.

(B) Monitor quarterly by the methods referenced in 340-22-153(2) all:

- (i) Compressor seals,
- (ii) Pipeline valves in gaseous service; and,
- (iii) Pressure relief valves in gaseous service.

(C) Monitor weekly by visual methods all pump seals;

(D) Monitor immediately any pump seal from which liquids are observed dripping;

(E) Monitor any relief valve within 24 hours after it has vented to the atmosphere; and

(F) Monitor immediately after repair of any component that was found leaking.

(c) Pressure relief devices which are connected to an operating flare header, vapor recovery device, inaccessible valves, storage tank valves, or valves that are not externally regulated are exempt from the monitoring requirements in 340-22-153(3)(b).

(d) The owner or operator of a petroleum refinery, upon the detection of a leaking component, shall affix a weatherproof and readily visible tag bearing an identification number and the date the leak is located to the leaking component. This tag shall remain in place until the leaking component is repaired.

(e) The owner or operator of a petroleum refinery, upon the completion of each yearly and/or quarterly monitoring procedure, shall:

(A) Submit a report to the Department on the 15th day of January, April, July, and September, listing the leaking components that were located but not repaired within the required time limit in 340-22-153(3)(1)(a);

(B) Submit a signed statement attesting to the fact that, with the exception of those leaking components listed in 340-22-153(3)(e)(A), all monitoring and repairs were performed as stipulated.

(f) The owner or operator of a petroleum refinery shall maintain a leaking component monitoring log which shall contain, at a minimum, the following data:

- (A) The name of the process unit where the component is located;
- (B) The type of component (e.g., valve, seal);
- (C) The tag number of the component;
- (D) The date on which a leaking component is discovered;
- (E) The date on which a leaking component is repaired; and
- (F) The date and instrument reading of the recheck procedure after a leaking component is repaired.
- (G) A record of the calibration of the monitoring instrument.
- (H) Those leaks that cannot be repaired until turnaround, (exceptions to the 15 day requirement of 340-22-153(1)(a) B).
- (I) The total number of components checked and the total number of components found leaking.

(g) Copies of all records and reports required by this section shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted.

(h) Copies of all records and reports required by this section shall immediately be made available to the Department upon verbal or written request at any reasonable time.

(i) The Department may, upon written notice, modify the monitoring, recordkeeping and reporting requirements.

#### (4) EXEMPTIONS

Rule 340-22-153 does not apply to components handling liquids with a true vapor pressure of less than 10.5 kPa (1.52 psia).

#### Liquid Storage

340-22-~~[135]~~ 160(1)

After April 1, 1981, ~~[a11]~~ owners or operators which have tanks storing methanol ~~[and]~~ or other volatile organic compound liquids with a true vapor pressure, as stored, greater than 10.5 kPa (kilo Pascals) (1.52 psia), but less than 76.7 kPa (11.1 psia) and having a capacity greater than 150,000 liters (approximately 39,000 gallons) shall comply with one of the following:

- ~~[(1)]~~ (a) Meet the equipment specifications and maintenance requirements of the federal standards of performance

for new stationary sources--Storage Vessels for Petroleum Liquids, 40 CFR 60, Subpart K, and Ka, as amended by [~~proposed-rule-change,~~] Federal Register, [~~May-18,-1978,-pages-21616-through-21625~~] April 4, 1980, pages 23379 through 23381.

- [~~2~~] (b) Be retrofitted with a floating roof or internal floating cover using at least a nonmetallic resilient seal as the primary seal meeting the equipment specifications in the federal standards referred to in 340-22-~~[135(1)]~~ 160(a) above, or its equivalent.
- [~~3~~] (c) Is fitted with a floating roof or internal floating cover meeting the manufacturers equipment specifications in effect when it was installed.

[340-22-136]

(2) All seals used in 340-22-~~[135(2)-and-(3)]~~ 160(1)(b) and (c) above are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears, or other openings.

(3) All openings, except stub drains and those related to safety (such as slotted gage wells), are to be sealed with suitable closures. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place; except for slotted gage wells which must have floating seals with one half inch edge gaps or less.

#### (4) SECONDARY SEALS

##### (a) APPLICABILITY

Rule 340-22-160(4)(c) applies to all VOC liquid storage vessels equipped with external floating roofs, having capacities greater than 150,000 liters (39,000 gal).

##### (b) EXEMPTIONS

Rule 340-22-160(4)(c) does not apply to petroleum liquid storage vessels which:

(A) Are used to store waxy, heavy pour crude oil;

(B) Have capacities less than 1,600,000 liters (420,000 gal) and are used to store produced crude oil and condensate prior to lease custody transfer;

(C) Contain a VOC liquid with a true vapor pressure of less than 10.5 kPa (1.5 psia);



- (D) Contain a VOC liquid with a true vapor pressure less than 27.6 kPa (4.0 psia); and,
- (i) Are of welded construction; and,
  - (ii) Presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or other closure device of demonstrated equivalence approved by the Department; or,
- (E) Are of welded construction, equipped with a metallic-type shoe primary seal and has a secondary seal from the top of the shoe seal to the tank wall (shoemounted secondary seal).
- (c) After December 31, 1981, no owner of a VOC liquid storage vessel subject to 340-22-160 shall store VOC liquid in that vessel unless:
- (A) The vessel has been fitted with:
    - (i) A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or
    - (ii) A closure or other device which controls VOC emissions with an effectiveness equal to or greater than a seal required under part (A) (i) of this section as approved in writing by the Department.
  - (B) All seal closure devices meet the following requirements:
    - (i) There are no visible holes, tears, or other openings in the seal(s) or seal fabric:
    - (ii) The seal(s) are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and,
    - (iii) For vapor mounted seals, the accumulated area of gaps exceeding 0.32 cm (1/8 in.) in width between the secondary seal and the tank wall are determined by the method in 340-22-160 (4) (d) and shall not exceed 21.2 cm<sup>2</sup> per meter of tank diameter (1.0 in.<sup>2</sup> per ft. of tank diameter).

- (C) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are:
- (i) equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and,
  - (ii) equipped with projections into the tank which remain below the liquid surface at all times.
- (D) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- (E) Rim vents are set to open only when the roof is being floated off the leg supports or at the manufacturers recommended setting; and,
- (F) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90 percent of the area of the opening.
- (G) The owner or operator of a VOC liquid storage vessel with an external floating roof subject to 340-22-160(4)(c) shall:
- (i) perform routine inspections once per year in order to ensure compliance with parts (A) through (F) of this section and the inspections shall include a visual inspection of the secondary seal gap;
  - (ii) measure the secondary seal gap annually in accordance with 340-22-160(4)(d) when the floating roof is equipped with a vapor-mounted primary seal; and,
  - (iii) maintain records of the types of VOC liquids stored.
- (H) The owner or operator of a VOC liquid storage vessel with an external floating roof not subject to this regulation, but containing a VOC liquid with a true vapor pressure greater than 7.00 kPa (1.0 psi), shall maintain records of the average monthly storage temperature, the type of liquid, and the maximum true vapor pressure for all VOC liquids with a true vapor pressure greater than 7.0 kPa.

(I) The owner or operator of a VOC liquid storage vessel subject to this regulation, shall submit to the Department, as a minimum, annual reports summarizing the inspections.

(J) Copies of all records and reports under paragraphs (G) (H), and (I) of this section shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted.

(K) Copies of all records and reports under this section shall immediately be made available to the Department, upon verbal or written request, at any reasonable time.

(L) The Department may, upon written notice, require more frequent reports or modify the monitoring and recordkeeping requirements, when necessary to accomplish the purposes of this rule.

(d) SECONDARY SEAL COMPLIANCE DETERMINATION

(A) The owner or operator of any volatile organic compound source required to comply with 340-22-160(4) shall demonstrate compliance by the methods of this section or an alternative method approved by the Department.

(B) A person proposing to conduct a volatile organic compound emissions test shall notify the Department of the intent to test not less than 30 days before the proposed initiation of the tests so the Department may observe the test. The notification shall contain the information required by, and be in a format approved by the Department.

(C) Compliance with 340-22-160(4)(c)(B)(iii) shall be determined by:

(i) Physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (1/8 in.) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and tank wall; and,

(ii) Summing the area of the individual gaps.

SURFACE COATING IN MANUFACTURING

[Surface-Coating-rule-is-changed-as-follows:]

340-22-[140] 170

- (1) After December 31, 1982, ~~[the-operation-of]~~ no person shall operate a coating line ~~[shall-not-emit]~~ which emits into the atmosphere volatile organic compounds greater than the ~~[following]~~ amounts in Table 1 per volume of coating excluding water as delivered to the coating applicators. The limitations shall be based on a ~~[24-hour]~~ daily average ~~[during-the-months-of April-through-October,-and-on-a-monthly-average-for the-other-months]~~. Daily monitoring and monthly reporting of emissions are required after July 1, 1980, for sources emitting more than 1,000 tons per year of VOC, unless exempted as unnecessary by the Department in writing.

(2) EXCEPTIONS

(a) Rule 340-22-170 does not apply to airplanes painted out of doors in open air; automobile and truck refinishing; customized top coating of automobiles and trucks, if production is less than 35 vehicles per day; marine vessels and vessel parts painted out in the open air; flat wood coating; wood furniture and wood cabinets; wooden doors, mouldings, and window frames; machine staining of exterior wood siding; high temperature coatings (for service above 500° F); lumber marking coatings; potable water tank inside coatings; high performance inorganic zinc coatings, air dried, applied to fabricated steel; traffic markings paint.

(b) Rule 340-22-170 does not apply to:

(1) Sources whose emissions of volatile organic compounds are less than 6.8 kilograms (15 pounds) per day and less than 1.4 kilograms (3 pounds) per hour, or

(2) Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance (such as research facilities, pilot plant operations, and laboratories) unless;

(i) the operation of the source is an integral part of the production process; or,

(ii) the emissions from the source exceed 363 kilograms (800 pounds) in any calendar month.

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(3) APPLICABILITY

Rule 340-22-170 applies to each coating line, which includes the application area(s), flashoff area(s), air and forced air drier(s), and oven(s) used in the surface coating of the metal parts and products in Table 1.

(4) STRINGENCY

If more than one emission limitation in 340-22-170 applies to a specific coating, then the least stringent emission limitation shall be applied.

Table 1

<u>Process</u>	<u>Limitation</u> <u>grams/liter</u>	<u>lb/gal</u>
<u>Can Coating</u>		
Sheet basecoat (exterior and interior) and over-varnish; two-piece can exterior (basecoat and over-varnish)	340	2.8
Two- and three-piece can interior body spray, two-piece can exterior end (spray or roll coat)	510	4.2
Three-piece can side-seam spray	660	5.5
End sealing compound	440	3.7
<u>Coil Coating</u>	310	2.6
<u>Fabric Coating</u>	350	2.9
<u>Vinyl Coating</u>	450	3.8
<u>Paper Coating</u>	350	2.9
<del>[or Inert Gas Process Paper Coating</del>	<del>567*</del>	<del>4.7*</del>
<u>Auto &amp; Light Duty Truck Coating</u>		
Prime	230	1.9
Topcoat	340	2.8
Repair	580	4.8
<u>Metal Furniture Coating</u>	360	3.0
<u>Magnet Wire Coating</u>	200	1.7
<u>Large Appliance Coating</u>	340	2.8
<u>Miscellaneous Products and Metal Parts</u>		
<u>Clear Coatings</u>	520	4.3
<u>Force Air Dried or Air Dried</u>	420	3.5
<u>Extreme Performance Coatings</u>	420	3.5
<u>Other Coatings (i.e. powder, oven dried)</u>	360	3.0

~~[\*Emission figured on a plant site basis, monthly average]~~

[340-22-141] (5) COMPLIANCE DETERMINATION

Compliance with 340-22-[140] 170 shall be determined by testing in accordance with Method [18] 25 or Method 34 (material balance method) on file with the Department. These methods may be revised by the Department for improvement based upon experience and new data. However, no revision shall apply to a compliance test scheduled prior to the making of the revision, unless the owner concurs. Compliance determination of surface coated product(s) pursuant to the requirements of Table 1 may be based upon an equivalency determination (See EPA May 5, 1980 memo "Procedure to Calculate Equivalency with the CTG Recommendations for Surface Coating" on file with the Department) of the mass of VOC per volume of solids applied including transfer efficiency as applicable, on a plant site or a process basis.

DEGREASERS

340-22-[145] 180

Cold cleaners, open top vapor degreasers, and conveyorized degreasers are exempt from the following rules if they use fluids which are not photochemically reactive. These fluids are:

C<sub>2</sub>Cl<sub>3</sub>F<sub>3</sub> trichlorotrifluorethane, also known as Freon 113 or Freon TF

CH<sub>2</sub>Cl<sub>2</sub> methylene chloride

1, 1, 1-C<sub>2</sub>H<sub>3</sub>Cl<sub>3</sub> methyl chloroform, also known as 1-1-1 trichloroethane or Chlorothene VG.

COLD CLEANERS:

- (1) The owner or operator of all cold cleaners shall comply with the following equipment specifications after April 1, 1980:
  - (a) Be equipped with a cover that is readily opened and closed.
  - (b) Be equipped with a drainrack that returns the drained solvent to the solvent bath.
  - (c) Have a freeboard ratio of at least 0.5.
  - (d) Have a visible fill line.
  
- (2) An owner or operator of a cold cleaner shall be responsible for following the required operating parameters and work practices. The owner shall post and maintain in the work area of each cold cleaner a pictograph or instructions clearly explaining the following work practices:

(34) A6327.B4 9/05/80

- (a) The solvent level shall not be above the fill line
  - (b) The spraying of parts to be cleaned shall be performed only within the confines of the cold cleaner
  - (c) The cover of the cold cleaner shall be closed when not in use or when parts are being soaked or cleaned by solvent agitation
  - (d) Solvent-cleaned parts shall be rotated to drain cavities or blind holes and then set to drain until dripping has stopped.
  - (e) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal.
- (3) The owner or operator shall maintain cold cleaners in good working condition and free of solvent leaks.
- (4) If the solvent has a volatility greater than 2.0 kPa (0.3 psi) measured at 38°C (100°F), or if the solvent is agitated or heated, then the cover must be designed so that it can be easily operated with one hand.
- (5) If the solvent has a volatility greater than 4.3 kPa (0.6 psi) measured at 38°C (100°F), then the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit unto the cleaning system.
- (6) If the solvent has a volatility greater than 4.3 kPa (0.6 psi) measured at 38°C (100°F), or if the solvent is heated above 50°C (120°F), then one of the following solvent vapor control systems must be used:
- (a) The freeboard ratio must be equal to or greater than 0.70; or
  - (b) Water must be kept over the solvent, which must be insoluble in and heavier than water; or
  - (c) Other systems of equivalent control, such as a refrigerated chiller.

OPEN TOP VAPOR DEGREASERS

340-22-[146] 183

- (1) The owner or operator of all open top vapor degreasers shall comply with the following equipment specifications after April 1, 1980:
- (a) Be equipped with a cover that may be readily opened and closed. When a degreaser is equipped with a lip exhaust, the cover shall be located
- (35) A6327.B4 9/05/80

below the lip exhaust. The cover shall move horizontally or slowly so as not to agitate and spill the solvent vapor. The degreaser shall be equipped with at least the following three safety switches:

- (A) Condenser-flow switch and thermostate--(shuts off sump heat if coolant is either not circulating or too warm).
- (B) Spray safety switch--(shuts off spray pump or conveyor if the vapor level drops excessively, e.g., greater than 10 cm (4 in.)).
- (C) Vapor level control thermostat--(shuts off sump heat when vapor level rises too high).

(b) Have ~~one of~~ the following:

- (A) ~~[(G)]~~ A closed design such that the cover opens only when the part enters or exits the degreaser, and either
- (B) ~~[(A)]~~ A freeboard ratio equal to or greater than 0.75 , or
- (C) ~~[(B)]~~ A freeboard, refrigerated or cold water, chiller.

(c) Post a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:

- (A) Do not degrease porous or absorbent materials such as cloth, leather, wood, or rope.
- (B) The cover of the degreaser should be closed at all times except when processing workloads.
- (C) When the cover is open the lip of the degreaser should not be exposed to steady drafts greater than 15.3 meters per minute (50 feet/min).
- (D) Rack parts so as to facilitate solvent drainage from the parts.
- (E) Workloads should not occupy more than one-half of the vapor-air interface area.
- (F) When using a powered hoist, the vertical speed of parts in and out of the vapor zone should be less than 3.35 meters per minute (11 feet/min.)
- ~~[(G)--The-vapor-level-should-not-drop-more-than ten-centimeters-(4-inches)-when-the-workload enters-the-vapor-zone.]~~



- (G) [~~H~~] Decrease the workload in the vapor zone until condensation ceases.
- (H) [~~I~~] Spraying operations should be done within the vapor layer.
- (I) [~~J~~] Hold parts in the degreaser until visually dry.
- (J) [~~K~~] When equipped with a lip exhaust, the fan should be turned off when the cover is closed.
- (K) [~~L~~] The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser.
- (L) [~~M~~] Water shall not be visible in the solvent stream from the water separator.

- (2) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses, as for example, from dripping drain taps, cracked gaskets, and malfunctioning equipment. Leaks must be repaired immediately.
- (3) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leakproof couplings.
- (4) Still and sump bottoms shall be kept in closed containers.
- (5) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal.
- (6) Exhaust ventilation shall not exceed  $20^3 \text{m} / \text{min per m}^2$  (65 cfm per  $\text{ft}^2$ ) of degreaser open area, unless necessary to meet OSHA requirements. Ventilation fans shall not be used near the degreaser opening.

#### CONVEYORIZED DEGREASERS

340-22-~~147~~ 186

- (1) The owner or operator of [~~all~~] conveyORIZED cold cleaners and conveyORIZED vapor degreasers shall comply with the following operating requirements after April 1, 1980:
- (37) A6327.B4 9/05/80

- (a) Exhaust ventilation should not exceed 20 cubic meters per minute of square meter (65 cfm per ft<sup>2</sup>) of degreaser opening, unless necessary to meet OSHA requirements. Work place fans should not be used near the degreaser opening.
- (b) Post in the immediate work area a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:
  - (A) Rack parts for best drainage.
  - (B) Maintain vertical speed of conveyed parts to less than 3.35 meters per minute (11 feet/min.)
  - (C) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser.
- (2) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses, as for example, from dripping drain taps, cracked gaskets, and malfunctioning equipment. Leaks must be repaired immediately.
- (3) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leakproof couplings.
- (4) Still and sump bottoms shall be kept in closed containers.
- (5) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal.
- (6) All conveyorized cold cleaners and conveyorized vapor degreasers with air/vapor interfaces of 2.0 m<sup>2</sup> or greater shall have one of the following major control devices installed and operating after April 1, 1982:
  - (a) Carbon adsorption system, exhausting less than 25 ppm of solvent averaged over a complete adsorption cycle (based on exhaust ventilation of 15 m<sup>2</sup>/min per m<sup>2</sup> of air/vapor area, when down-time covers are open), or
  - (b) Refrigerated chiller with control effectiveness equal to or better than (a) above, or

(c) A system with control effectiveness equal to or better than (a) above.

Asphaltic and Coal Tar Pitch Used for Roofing Coating

340-22-[150] 190(1)

A person shall not operate or use equipment after April 1, 1980, for melting, heating, or holding asphalt or coal tar pitch for the on-site construction, installation, or repair of roofs unless the gas-entrained effluents from such equipment are contained by close fitting covers.

(2) A person operating equipment subject to this rule shall maintain the temperature of the asphaltic or coal tar pitch below 285 degrees Centigrade (550 degrees Fahrenheit), or 17 degrees Centigrade (30 degrees Fahrenheit) below the flashpoint whichever is the lower temperature, as indicated by a continuous reading thermometer.

(3) The provisions of this rule shall not apply to equipment having a capacity of 100 liters (26 gallons) or less; or to equipment having a capacity of 600 liters (159 gallons) or less provided it is equipped with a tightly fitted lid or cover.

FLAT WOOD COATING

340-22-200

- (1) This rule applies to all flat wood manufacturing and surface finishing facilities, that manufacture the following products:
    - (a) Printed interior panels made of hardwood plywood and thin particle board;
    - (b) Natural finish hardwood plywood panels; or,
    - (c) Hardboard paneling with Class II finishes.
  - (2) This rule does not apply to the manufacture of exterior siding, tileboard, particleboard used as a furniture component, or paper or plastic laminates on wood or wood-derived substrates.
  - (3) After December 31, 1982, no owner or operator of a flat wood manufacturing facility subject to this regulation shall emit volatile organic compounds from a coating application system in excess of:
    - (a) 2.9 kg per 100 square meters of coated finished product (6.0 lb/1,000 square feet) from printed interior panels, regardless of the number of coats applied;
    - (b) 5.8 kg per 100 square meters of coated finished product (12.0 lb/1,000 square feet) from natural finish hardwood plywood panels, regardless of the number of coats applied; and,
    - (c) 4.8 kg per 100 square meters of coated finished product (10.0 lb/1,000 square feet) from Class II finishes on hardboard panels, regardless of the number of coats applied.
  - (4) The emission limits 340-22-200(3) shall be achieved by:
    - (a) The application of low solvent content coating technology; or,
    - (b) An incineration system which oxidizes at least 90.0 percent of the nonmethane volatile organic compounds entering the incinerator (VOC measured as total combustible carbon) to carbon dioxide and water; or,
    - (c) An equivalent means of VOC removal. The equivalent means must be approved in writing by the Department.
- (40) A6327.B4 9/05/80

- (5) A capture system must be used in conjunction with the emission control systems in 340-22-200(4)(b) and (c). The design and operation of a capture system must be consistent with good engineering practice and shall be required to provide for an overall emission reduction sufficient to meet the emission limitations in 340-22-200(3).

COMPLIANCE DEMONSTRATION

- (6) The owner or operator of a volatile organic compound source required to comply with this rule shall demonstrate compliance by the methods of 340-22-200(8), or an alternative method approved by the Department.
- (7) A person proposing to conduct a volatile organic compound emissions test shall notify the Department of the intent to test not less than 30 days before the proposed initiation of the tests so the Department may observe the test.
- (8) (a) Test procedures to determine compliance with 340-22-200(3) must be approved by the Department and be consistent with:
- (A) EPA Guideline Series document, "Measurement of Volatile Organic Compounds," EPA-450/2-78-041; and,
  - (B) Appendix A of "Control of Volatile Organic Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobile, and Ligh-Duty Trucks," EPA-450/-77-008.
- (b) The Department may accept, instead of the coating analysis required by 340-22-200(8)(a)(B), a certification by the coating manufacturer of the composition of the coating, if supported by actual batch formulation records.
- (9) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:
- (a) exhaust gas temperature of all incinerators;
  - (b) temperature rise across a catalytic incinerator bed; and
  - (c) breakthrough of VOC on a carbon absorption unit.

(41) A6327.B4 9/05/80

ROTOGRAVURE AND FLEXOGRAPHIC PRINTING

340-22-210

(1) After July 1, 1982, no owner or operator of a packaging rotogravure, publication rotogravure or flexographic printing facility, emitting more than 90 mg/year (100 ton/year), employing ink containing solvent may operate, cause, allow or permit the operation of the press unless:

(a) The volatile fraction of ink, as it is applied to the substrate, contains 25.0 percent by volume or less of organic solvent and 75 percent by volume or more of water; or,

(b) The ink as it is applied to the substitute, less water, contains 60.0 percent by volume or more nonvolatile material; or,

(c) The owner or operator installs and operates:

(A) A carbon adsorption system which reduces the volatile organic emissions from the capture system by at least 90.0 percent by weight;

(B) An incineration system which oxidizes at least 90.0 percent of the nonmethane volatile organic compounds (VOC measured as total combustible carbon) to carbon dioxide and water; or,

(C) An alternative volatile organic compound emissions reduction system demonstrated to have at least a 90.0 percent reduction efficiency, measured across the control system, and has been approved by the Department.

(2) A capture system must be used in conjunction with the emission control systems in subsection (1)(c). The design and operation of a capture system must be consistent with good engineering practice, and shall be required to provide for an overall reduction in volatile organic compound emissions of at least:

(a) 75.0 percent where a publication rotogravure process is employed;

(b) 65.0 percent where a packaging rotogravure process is employed; or,

(c) 60.0 percent where a flexographic printing process is employed.

(42) A6327.B4 9/05/80

(3) COMPLIANCE DEMONSTRATION:

- (a) Upon request of the Department, the owner or operator of a volatile organic compound source shall demonstrate compliance by the methods of this section or an alternative method approved by the Department. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.
- (b) A person proposing to conduct a volatile organic compound emissions test shall notify the Department of the intent to test not less than 30 days before the proposed initiation of the tests so the Department may observe the test. The notification shall contain the information required by, and be in a format approved by, the Department.
- (c) Test procedures to determine compliance with 340-22-210 must be approved by the Department and consistent with:
- (i) EPA Guideline Series document, "Measurement of Volatile Organic Compounds," EPA-450/2-78-041; and
  - (ii) Appendix A of "Control Volatile Organic Emissions from Existing Stationary Sources Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks," EPA-450/2-77-008.
  - (iii) The Department may accept, instead of ink-solvent analysis, a certification by the ink manufacturer of the composition of the ink solvent, if supported by actual batch formulation records.
- (d) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:
- (A) Exhaust gas temperature of all incinerators; and
  - (B) Breakthrough of VOC on a carbon adsorption unit.

PERCHLOROETHYLENE DRY CLEANING

340-22-220

- (1) After January 1, 1982, the owner or operator of a perchloroethylene dry cleaning facility shall;
  - (a) Vent the entire dryer exhaust through a properly functioning carbon adsorption system or equally effective control device;
  - (b) Emit no more than 100 ppmv of volatile organic compounds from the dryer control device before dilution;
  - (c) Immediately repair all components found to be leaking liquid volatile organic compounds.
  - (d) Cook or treat all diatomaceous earth filters so that the residue contains 25 kg or less of volatile organic compounds per 100 kg of wet waste material;
  - (e) Reduce the volatile organic compounds from all solvent stills to 60 kg or less per 100 kg of wet waste material;
  - (f) Drain all filtration cartridges, in the filter housing, for at least 24 hours before discarding the cartridges; and
  - (g) When possible, dry all drained cartridges without emitting volatile organic compounds to the atmosphere.

EXEMPTIONS

- (2) The requirements of 340-22-220(1)(a) and (b) are not applicable to:
  - (a) coin-operated facilities,
  - (b) facilities where an adsorber cannot be accommodated because of inadequate space, or
  - (c) facilities with insufficient steam capacity to desorb adsorbers.



COMPLIANCE DEMONSTRATION

(3) Compliance to this rule shall be demonstrated as follows:

(a) Compliance with 340-22-220(1)(a), (f), and (g) shall be determined by means of a visual inspection.

(b) Compliance with 340-22-220(1)(c) shall be determined by means of a visual inspection of the following components:

(1) Hose connections, unions, couplings and valves;

(2) Machine door gaskets and seatings;

(3) Filter head gasket and seating;

(4) Pumps;

(5) Base tanks and storage containers;

(6) Water separators;

(7) Filter sludge recovery;

(8) Distillation unit;

(9) Diverter valves;

(10) Saturated lint from lint basket; and

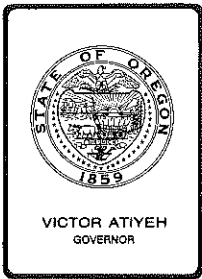
(11) Cartridge filters.

(c) Compliance with 340-22-220-(1)(b) shall be determined by:

(1) A test consistent with EPA Guideline Series document, "Measurement of Volatile Organic Compounds," EPA-450/2-78-041; or

(2) The proper installation, operation, and maintenance of equipment which has been demonstrated to be adequate to meet the emission limits of 100 ppmv.

(d) Compliance with 340-22-220(1)(d) and (e) shall be determined by means of the procedure in the "Standard Test Method for Gasoline Diluent in Used Gasoline Engine Oils By Distillation," ANSI/ASTM D 322.



# Environmental Quality Commission

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## MEMORANDUM

To: Environmental Quality Commission

From: Rhea Kessler, Hearings Officer and  
Peter B. Bosserman, VOC Rules Author  
*P.B.B.*

Subject: Summary of May 21, 1980, Hearing Testimony  
Regarding Changes and Additions to VOC Rules,  
OAR 340-22-100 to -220 and to Permit Fees  
OAR 340-20-155

After introductory remarks by Rhea Kessler, the following testimony began at 1 p.m. in the Fish and Wildlife Auditorium at 506 SW Mill in Portland:

1. Peter B. Bosserman, Senior Environmental Engineer, State of Oregon, Department of Environmental Quality (DEQ)

Bosserman entered into the record a four page letter (appended to this MEMORANDUM) from his section, detailing information gathered between April 6, and May 21, 1980. This information clarified changes previously proposed, and brought to light minor wording changes which would make the intent and administration of the rules by DEQ more clear to the persons being regulated.

- a. Gasoline Bulk Plants. Reversion of rules 340-22-110 to -120 to the requirements of those rules as adopted on June 8, 1979, was considered for the Medford and Salem areas only.
- b. Painting. A 4.0 lb/gal solvents in air-dried paint rule was published for EPA approval. EPA will need considerable data to permit this value, less stringent than EPA's preferred value of 3.5 lb/gal solvents in air-dried paint.
- c. Paper Coating. The staff summarized changes being negotiated with EPA and 3M Company.
- d. In response to a letter and requests from Gasoline Terminals, the staff is clarifying whom the 340-22-130(1) rule will hold responsible for hook-up vapor return hoses.
- e. Statewide Rule. The staff detailed several changes in the Statewide VOC Rule which would meet some industry objections. Industry has alluded to sources affected, which industry has not yet identified.



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Materials

- f. Alternative Control. The staff described possible effects of the December 11, 1979, federal Policy Statement (FR 71780-88) on Oregon's proposed Alternative Control Rule, 340-22-108.

Bosserman verbally stated that this letter, which was distributed to all parties at the hearing, was intended to stimulate testimony on the rules, and should be construed to be the present thinking of the staff on these technical matters, and not any final decision by the staff on what should be proposed to the Environmental Quality Commission (EQC).

2. State Representative Clayton C. Klein, Jr., (D) Medford

Klein advocated no change from the gasoline marketing rules adopted June 8, 1979, by the EQC, for the gasoline bulk plants and service stations in the Medford AQMA. The changes proposed in the 4/03/80 draft of VOC rules 340-22-110 and -120 will cost far too much for the few tons of VOC per year captured. Klein stands fast in support of the rule, as marked up on 5/21/80. He urged the DEQ to stonewall the federal EPA on this issue; Oregon's congressional delegation will help. Klein observed that voluntary or mandatory auto inspection/maintenance is preferred over extending vapor balance, from a cost effective standpoint. Klein requested that the hearing record be held open for 30 days, as he wanted at least that much time to make sure that DEQ had enough data "to stick by your guns" and not move off the existing rule adopted June 8, 1979. Klein said that the vapor balance additions added by DEQ to satisfy EPA criticism was an unnecessary and expensive burden to the bulk plants, service stations, and the public. Klein said that some service stations and bulk plants would close, because of these proposed additions; and that their federal allocations would be lost, causing future gasoline shortages in Jackson County to be unnecessarily severe. Klein said Mr. Winkelman (the next person testifying) would give further details, but that more reductions should be realized from the automobile population.

3. Mel Winkelman, Chevron agent, independent owner and operator of a Medford bulk gasoline plant, spoke for the gasoline marketing industry of Medford. Mr. Winkelman said that since the Medford area was figured by DEQ to attain the standard by 1982, then EPA could approve the gasoline marketing rule of June 8, 1979 for Medford, even though they perhaps couldn't for Portland, where the ozone will be violated past 1982.

Rather than do more vapor balance, the bulk plant owners would rather spend money on automobile inspection and maintenance, if DEQ thinks more reductions are needed.

Mr. Winkelman provided cost estimates from Chevron's Seattle engineering group of \$130,000 to retrofit Medford bulk plant's tanks, loading racks, and delivery truck with vapor balance and an incinerator to destroy the captured vapors. Since he could not pay for these costs out of profits, he would not install them, and elect to stop delivery to customers over 10,000 gallons per month, if that rule were adopted. He presented a list of 12 service stations in the Medford AQMA which receive over 10,000 gallons in any month, but less than 240,000 gallons a year. These are the stations which, when cut off from their gasoline from bulk plants, would face going out of business. Mr. Winkelman handed over a May 16, 1980, letter from Hawk Oil Co., the Exxon bulk plant in Medford. This letter described a minimum cost of \$18,000 for one of these gas stations to install a large tank with vapor balance fittings, in order to receive terminal delivered gasoline. This cost is not within the financial capability of these types of "MA and PA" service stations.

Both Winkelman and Hawk Oil point out that is not cost effective for the Medford bulk plants to spend a million dollars to capture less than 5% of the gasoline vapors generated in the Medford AQMA, or less than 15 tons of VOC per year from filling those twelve service stations and filling the account trucks to serve them. The money would be better spent on automobile Inspection and Maintenance.

Winkelman pointed out that since the proposed rule would force those twelve "MA & PA" stations out of business, then that two million gallons of gasoline would be lost to users in the Medford area.

Mr. Winkelman also handed over a May 20, 1980, letter from Wm. Cornitius, Medford Shell bulk plant owner. All three of these bulk plant owners urged, that if vapor balance was imposed on their customers, then its effective date should be put off at least two years, to see if it was really needed.

4. Kenneth O. Dunder, Georgia - Pacific chemist, spoke against regulating Methanol storage emissions anywhere, especially in Albany or Coos Bay (ozone attainment areas). His remarks are attached as presented. In oral testimony, he added that only cooling tower water is used at Albany to condense methanol vapors tending to be vented.
5. John Hartup, Chevron U.S.A., chairman of Western Oil and Gas Association's terminal managers committee, presented oral testimony, which was also written and is attached. In oral testimony he highlighted items 2, 3, 8, 9, 12, 13, 17, and 20 of the 22 item, 13 page testimony, dated May 19, 1980. He urged changes in gasoline marketing rules.
6. Les Krohn, Union Oil Manager of Environmental Control, presented his written testimony orally, which is attached, four pages. He covered three points in gasoline marketing.

7. Bryon Stoddard, Staff Engineer, Shell Oil, Houston, presented his written testimony orally, which is attached, four pages. He covered three points in gasoline marketing.
8. Lee Manley, Project Engineer, Southern Pacific Pipelines, presented verbal testimony about their Eugene and Albany gasoline terminals. Controls at the Eugene terminal would not recover enough gasoline to pay for the cost of controls. Unless the Department redefines major source at 125 tons VOC per year, Southern Pacific Pipelines would close the Albany terminal; the cost of control would make it uncompetitive with truck delivered gasoline. The company estimates costs at 15 to 20¢ per barrel of gasoline loaded.
9. Jon C. Anderson, Manager, Wagner Mining Equipment Co., presented his written testimony orally, which is attached. His remarks addressed the proposed rules on air-dried painting; urged the 4.0 lb/gal rule, requested a 20 TPY exemption point, wanted later interim compliance schedule dates, and favored the "bubble" rule.
10. Thomas C. Donaca, General Counsel, Associated Oregon Industries, presented oral testimony, which was typed and received May 23, as attached, three pages. His eight comments included testimony against the statewide rule. He was concerned about the substantive changes in the proposed rules presented at the hearing by Peter Bosserman and questioned whether these procedures met the notice and hearing requirements of the Administrative Procedure Act.
11. F. Glen Odell, Consultant, presented written and oral testimony from two of his clients, FMC Corp., and Freightliner Corp. Several days later he provided a typed copy of his oral testimony. These are attached:
  - a. Freightliner May 14, 1980, letter
  - b. Seton, Johnson & Odell, Inc. May 21, 1980, letter on behalf of FMC Corp., plus attached April 4, 1980 report
  - c. Seton, Johnson & Odell, Inc. May 22, 1980 letter with attached data showing rainy summer days. Odell was against statewide rules and for less stringent air-dried paint rules.
12. Dr. James E. Walther, Supervisor of Air Programs, Crown Zellerbach Corp., presented his written testimony orally, which is attached. Additionally, he remarked that the north Portland plant wanted to reduce highly reactive toluene emissions from paper coating rather than less reactive alcohol emissions from their flexographic printing presses, under the proposed bubble rule. If this was not possible, a longer compliance time would be needed in 340-22-210.

He emphasized that the Department's alternative control rule, 340-22-108, should be approved without the suggested amendments of May 21, 1980; the State should do what it considers best, then if EPA doesn't like it, they will have to say why. He also questioned the Department's procedure used in introducing changes in the proposed rules during the hearing.

13. C. T. Metcalf, Product Applications Engineer, Shell Oil Co., spoke in favor of the property specification type rule shown in 340-22-140, and was against in-use specifications, as provided in EPA guidance.

He testified that the "Other" category at 8% solvent limit, in 340-22-140(4)(h), was not needed.

He testified that asphalt users don't blend in any more solvent than necessary. In hot, sunny weather, emulsified asphalt (grade CRS or CSS) is laid down with no solvents at all.

14. Tom Buglione, Production Manager, Willamette Industries, presented his written testimony orally, which is attached.

In summary, he opposed any statewide rule, and desired the state ozone standard of .08 ppm be revised upward to the federal standard of .12 ppm.

15. Stephen R. Norton, Chairman of Environmental Committee, Pacific Northwest Society for Coatings Technology, an employee of Tenneco Chemicals, first presented a letter from Norris Paint and Varnish, which is attached. Norris expressed dissatisfaction with the obscure way the standard was expressed. An exemption for traffic marking paint was requested.

Mr. Norton had his remarks typed and submitted them later, along with reference previous letters and companion letters which are attached:

- a. Norris Paint & Varnish Co. May 20, 1980, letter
- b. Norton May 21, 1980, letter
- c. McCloskey Varnish Co. June 2, 1980, letter
- d. Union Carbide Corp. May 28, 1980 letter
- e. Rohm & Haas Co. May 23, 1980, letter
- f. Rohm & Haas Co. May 28, 1980, letter
- g. Norton Feb. 23, 1980, letter with attachments
- h. Reliance Universal Inc. Feb. 25, 1980, letter
- i. Forrest Paint Co. Feb. 21, 1980, letter
- j. Norton June 17, 1980, letter with attached meteorological data

As no one else asked to testify, the hearing was adjourned at 3:30 p.m., with the announcement that the hearing record would be kept open for 30 days. The following written testimony has been received.

16. Clement Mesavage, Enviromental Affairs, GATX asked that methanol not be singled out for more stringent treatment in 340-22-160(1) in his two page letter, May 9, 1980, attached.
17. R. W. Berwald, Engineering, Borden Chemical, proposed two ways of reducing methanol emissions in his single page, May 12, 1980, letter, attached.

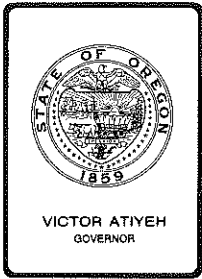
18. Wm. S. Hahn, Olympic Stain, asked exemption for architectural coatings applied by machine staining in his May 16, 1980, letter, with 6 page addition, attached.
19. Stephen M. Malm, Hyster Co., asked for exemption of custom coatings at their fork lift plant, and passage of the alternative control rule, in his May 16, 1980, four page letter, attached.
20. H. R. Soloman, Chevron U.S.A., presented 17 comments in eight pages of his May 19, 1980, letter, attached. Chevron opposes a statewide rule, and made other comments concerning gasoline marketing.
21. G. L. Beuker, District Engineer, The Asphalt Institute, supported the property specification type rule in 340-22-140(4), concerning emulsified asphalt, in his seven pages of letters, dated April 3 and 23, 1980, attached. He also asked for classification of SC grades as road oils rather than cutback asphalts. In his June 23, 1980, letter, two pages, attached, he asked for exemption of SC cutbacks and road oils for use as dust palliatives.
22. Bob B. Wallan, Chevron U.S.A., in his July 1, 1980, one page letter, attached, opposed any exemption of SC grade or road oils from the VOC rules, for use as dust palliatives.
23. Richard R. Theil, Chief, Air Programs Branch, EPA, Region X office, Seattle in his May 21, 1980, three page letter, attached, said that he would not be able to approve 340-22-108, the Alternative Control or "bubble" rule because "it is inconsistent on almost all points with EPA's Bubble Policy".
24. Tim Ayers, head chemist, Laurence - David, requested a simple pounds of solvent per gallon of coating rule, without the "excluding water" phrase, in his April 22, 1980, one page letter.
25. James E. Hudson, general manager, Grange Cooperative Supply Assoc., Medford, asked that vapor balance type controls not be imposed on bulk plant delivery or their small customers, in his May 20, 1980, one page letter attached.
26. Ralph W. Hanley, City Manager, Salem, opposed the restrictions on slow cure (SC) and medium cure (MC) cutback asphalt in 340-22-140, in his May 5, 1980, one page letter, attached, sent thru Sue Hollies of Mid-Willamette Valley Council of Governments.
27. Sandra Diedrich, Director, Coos - Curry Council of Governments, opposed inclusion of Coos and Curry Counties in VOC rules, in her May 20, 1980, one page letter, attached.
28. Donald R. Arkell, Program Director, Lane Regional Air Pollution Authority, Eugene, opposed statewide VOC rules in his one page, May 22, 1980, letter, attached.

29. Paul H. Payne, Technical director, Norris Paint & Varnish Co., asked for exemption of traffic markings paint from VOC rules in his two page, May 29, 1980, letter, attached.
30. Gerald G. Palmer, Environmental Specialist, Simpson Timber Co., opposed the statewide VOC rule and requested that methanol be considered an exempt volatile organic compound because of its low photochemical reactivity, in his two page, June 13, 1980, letter, attached.
31. J. M. Hatfield, Technical Director, Reliance Universal, Inc., had six comments on coating rules in his two page, June 10, 1980, letter, attached. He also opposed any statewide VOC rule.
32. Dr. James E. Walther, Supervisor of Air Programs, Crown Zellerbach Corp., sent additional testimony, five pages, by a June 16, 1980, letter, attached.
33. Peter B. Bosserman, DEQ Engineer, met with Western Oil and Gas Association's gasoline terminal managers on June 18, 1980, over slotted gage wells, responsibility for vapor balance, etc. An eight page record of that meeting is attached.
34. D. J. Fogelquist, Western Oil and Gas Association, wrote June 19, 1980, that EPA had given Washington State conditional approval in the June 5, 1980, Federal Register, pg. 37824, on a VOC rule which exempts service stations with a throughput of less than 200,000 gallons per year. Oregon's present VOC rules have an exemption point of 240,000 gallons per year, but the hearing was held on a value of 10,000 gallons per month.
35. Michael J. Dougherty, Union Oil, wrote July 14, 1980, that EPA's draft New Source Performance Standard for Gasoline Terminals accepts a pressure decay of 3 inches in 5 minutes for tank truck leak testing. He urged this value rather than 1 inch, as found in proposed 340-22-137(1) (b).

#### Recommendation

This report was authored by Peter Bosserman, the VOC rules author. Rhea Kessler presided over the May 21, 1980, hearing. The recommendations on the major issues in this testimony are authored by the air quality staff and are presented as 8 issues at the end of the Memorandum to the Commission at their September 19, 1980, meeting. This disposition and recommendations concerning the other testimony is addressed in the attached memorandum, authored by Peter B. Bosserman.





## Environmental Quality Commission

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### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Staff Response to Testimony on  
VOC Rules, OAR 340-22-100 to -220,  
and Permit Fees, OAR 340-20-155

The testimony from thirty-five persons is discussed in the same order it is listed in the hearings report, with separate comments listed as a., b., c., etc.

1. Bosserman a., b., e., f., are major issues, see Memorandum to the Commission, last part, ISSUES.
  - c. Paper Coating - there was no adverse testimony to these small changes in the paper coating rule 340-22-170 to address EPA concerns.
  - d. Vapor Balance Responsibility - Here the Department outlines a very stringent rule, holding all parties responsible. Other testimony wanted only one party responsible. The gasoline terminal rule 340-22-130 was re-written to model the Washington State rule, which the terminal operators felt was fair. See also testimony #33.
2. & 3. Testimony by Clayton Klein, Mel Winkelman, Hawk Oil, and Wm. Cornitius - was on vapor balance in gasoline marketing. This is discussed in major issue 3, except that later compliance for additional vapor balance imposed in 1980 was delayed to April 1, 1983, as requested in the testimony.
4. Dunder - spoke against methanol controls for his plants in Albany and Coos Bay. See major issues 1 and 8 for consideration.
5. Hartup had twenty-two concerns in gasoline marketing, presenting Western Oil and Gas associations concerns, as follows:
  - a.(1) Are the proposed fees one-time or annual? See Table A of OAR 340-20-155. The Application Processing fee is the second column in Table A, and is the first column in the proposed rules; it is a one-time fee (for acquiring a permit or permit modification). The Annual Compliance Determination Fee is the third fee column in Table A, and is the second column in the proposed rules; it is an annual fee.



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- b.(2) A workshop is proposed for the statewide rule; Hartup is against a statewide rule; see major issue 1.
- c.(3) Objections are raised to being so directly tied to California approvals and test procedures. The Department has no objection to equivalent equipment or tests approved by other air pollution control agencies; therefore the language in 340-22-102(5) and 340-22-107(1) is broadened to include other agency approvals and test procedures. The Department would be the judge of equivalency in each and every case, however.
- d.(4) Objections were stated to boats and airplanes in 340-22-102(18). This inclusion of boats and airplanes in "gasoline dispersing facility" was specifically intended in the VOC rules as adopted on December 15, 1978, and amended on June 8, 1979. It causes marinas and light-plane airports to be included in rules 340-22-110 to -137, as gasoline vapor is emitted from storage tanks at those sources also.
- e.(5) Hartup wants "unless there is an increase in emission" deleted from 340-22-102(25)(a). Granted that there may be a temporary increase in emissions during maintenance and repair. But this temporary increase always occurs during these repetitive actions, therefore no unanticipated increase occurs. By leaving this phase in, the Department is forbidding changes in maintenance and repair procedures which would cause emissions greater than procedures anticipated to happen when the facility was put under permit or given approval to construct.
- f.(6) Hartup suggests change of the word stripping in 340-22-102(31). This was made. The second part of this comment is a request to separate a refinery from adjacent facilities, under control of the same owner. Because it applies to only one site in Oregon, the effect of this clarification will be observed in the respective Air Contaminant Discharge Permits of these adjacent facilities, rather than making the rule longer.
- g.(7) Hartup objects to 340-22-110(1)(b) as it seems to require 100% control. In 340-22-110(4) Method 30 is referenced as the test method. It clarifies that 90% control is required.
- h.(8) Hartup wants bulk plants of less than 20,000 gal/day and their customers exempted from vapor balance. See major issue 3.

- i.(9) Hartup notes that builders are co-responsible for 340-22-110(3). This is unique in Oregon OAR, and Hartup wants it deleted. This rule was adopted this way both on December 15, 1978, and on June 8, 1979. Very few commercial buyers of tanks storing gasoline for their commercial vehicles are aware of the VOC rules. Likewise new and small independent gas station owners are not familiar with the rules. Contractors and equipment salesmen are familiar with the VOC rules. Therefore this rule included builders so that they would be held responsible for installing tanks in violation of the VOC rules. Testimony was not received from builders against this; it strengthens the builders case for putting in conforming tanks.
- j.(10) Hartup objects to reporting spills as small as 5 gallons of gas. This remark must have come from someone in Western Oil and Gas Association who did not attend the September 1979 meeting with the Portland committee of that organization. At that meeting, this 5 gallon limit was set, in place of EPA requested language "if an accident (spill) occurs, it shall be reported".
- k.(11) Hartup objects to absolutes such as "all" and "only" in the rules. Since better (but unknown) language is requested, the Department would be open to a conference or exchange of letters to improve such language.
- l.(12) Hartup requests a conference over responsibility for vapor balance at terminals, which was held June 18, 1980.
- m.(13) Hartup requests a less stringent test of 3 inches drop in 340-22-137(1)(b). See major issue #7.
- n. (14) Hartup requests permission for alternate test methods in 340-22-137. This would be allowable under proposed 340-22-108, as a different process of ascertaining leak rates. If such alternate methods are proposed, they can be easily added to Methanol 31 or 32.
- o.(15) Hartup requests "visible liquid leaks" be changed to 3 drops or more per minute. The Department is of the opinion that visible liquid leaks are so obvious that they need no exemption point, as is proposed.
- p.(16) Hartup requests a longer period between tests, following a good record in 340-22-137. The Department sees a lot of testimony on the 1" or 3" leak test, that such a good record never happens. Therefore, the Department will keep the annual test, until trucks are made differently.

- q.(17) Hartup wants record retention of two years rather than four in 340-22-153(3). Since this is consistent with the Control Technology Guidelines document, it was changed.
  - r.(18) Hartup wants 340-22-153(e) deleted as unnecessary reporting. The Department does not see any great burden in a refinery sending the Department quarterly reports that they are fixing leaks per 340-22-153; and listing those leaks that were not stopped within 15 days of being found.
  - s.(19) Hartup wants low volatile liquids exempted from 340-22-153. This is important, as the only refinery in Oregon makes asphalt from its single distillation tower. Since asphalt has negligible volatility, 340-22-153(4) was added to exempt low volatile liquids like asphalt from the leak rule.
  - t.(20) Hartup wants exemption from through-put record keeping in 340-22-160. Because this is implied from its absence in the Control Technology Guideline Document, and because through-puts on a plant site basis will be required for annual emission inventory purposes in each plant's Air Contaminant Discharge Permit, this request was granted.
  - u.(21) Hartup wants exemption from submitting annual reports about seal gaps in floating roof tanks. The Department declines to make this exemption as it is central to getting the seal gaps checked annually and accomplish the reduction needed by this rule.
  - v.(22) Hartup wants to have the basis stated for more frequent than annual reports, as enabled by 340-22-160(4)(L). The basis for more or less frequent reports will be the operator's past performance. If gap seals are OK for two years running, less frequent monitoring and reporting could be asked for by the operator, and granted by the Department. There may be other reasons, so the basis is broader, and not amenable to stating definitively in the rule.
6. Les Krohn was against the state-wide rule and wanted exemption from vapor balance for 10,000 gallon per day bulk plants and their customers. See major issues 1 and 3. He also wanted responsibility for vapor balance at terminals put on the truck driver. A compromise on this was reached at a June 18, 1980, meeting with the terminal managers. See testimony #33, a record of that meeting.

7. Byron Stoddard raised issues covered by Hartup and Krohn above. See above responses.
8. Lee Manley, Southern Pacific Pipelines, was against the statewide rule; if it were adopted, he wanted exemption for their Albany terminal. This is major issue #1 in the attached memorandum, where the statewide rule is deferred for study.
9. Jon Anderson, Wagner Mining Equipment, supported the 4.0 air-dried paint rule (see major issue #4); requested exemption of small painters, Wagner included (see major issue #5); wanted later interim compliance dates (change made); and favored the "bubble" rule (see major issue #6).
10. Thomas Donaca, Associated Oregon Industries, had the following testimony on six topics:
  - a.(1) He was against the statewide rule and suggested putting it in a task force for study; see major issue #1 where this is recommended.
  - b.(2) He was strongly in favor of "other VOC pollution control devices" laying idle in winter in 340-22-106. See major issue #2.
  - c.(3) He objected to references in 340-22-107(1) to California. Therefore these references are being removed so that the section simply encourages use of designs developed elsewhere and approved by the air pollution authority in that region. Donaca also urged extension of compliance dates in this section where a firm was hit hard in the current recession; this would be done under the existing variance law, ORS 468.345.
  - d.(4) He supported the 20 TPY exemption point for 340-22-170(2)(b), the surface coating rule, rather than the 15 lb/day (about 1 TPY). See major issue 5.
  - e.(5) He objects to 340-22-108(2) where an exemption under a bubble rule can be revoked. The purpose of this was to remind any plant receiving the benefit of a bubble rule, that such a benefit can be revoked in future rule making where the Commission would decide on more stringent rules for a class of VOC sources. The Department prefers to publish this warning in the rule. One can assume from past strategies, that there is generally at least five years between strategies.

f. (6) Donaca questioned the legality of the Department's opening testimony at the hearing, where several variations of the rules were discussed. The Department saw this as an advanced version of this report, helpful in informing the persons affected of where the Department was going. No new rules or major subjects were opened by this testimony.

11. F. Glen Odell, spoke against a statewide VOC rule. His arguments were accepted; see major issue 1. His suggestion for later milestone dates for the misc. paint rule in 340-22-107(3) were implemented.

Odell presented data for days of rainfall, by month, in Portland, Salem, and Medford. He also offered his letters of May 21, May 22, and his April 4 1980, report to FMC in support of the 4.0 lb. of VOC per gallon (less water) rule for air dried paint. See major issue 4.

Odell presented a letter from Freightliner Corp. which supported the exemption for customized topcoating of trucks in ~~430~~<sup>348</sup>-22-170(2)(a) and supported 340-22-108, the bubble rule. See major issue 6.

12. Dr. James E. Walther gave testimony:
- (a) against the statewide rule, see issue 1;
  - (b) for a simple bubble rule, see issue 6;
  - (c) against the printing rule, 340-22-210, which he claimed would be difficult to comply with by July 1, 1982. He also cited errors made by EPA in claiming that low solvent, water borne inks could be used on packaging products. He quoted high costs of control.

The staff acknowledges these difficulties, and recommends a bubble rule so that Walther could reduce paper coating emissions instead, as Walther testified he would.

(d) Walther also testified for winter time shut-off of other VOC control devices. See major issue 2.

13. C. T. Metcalf, testified that 340-22-140(4)(h) was not needed, as there were no other grades of emulsified asphalt. Therefore, that line was deleted. His other testimony supported the way rule 340-22-140 was written.

14. Stephen R. Norton testified against the standard in 340-22-170(1) where it is expressed less water. The Department has in hand a further complication, where EPA requires transfer efficiency, also be considered. See the May 5, 1980, memo, Richard G. Rhoads to Chief, Air Programs Branch, Region I-X, "Procedures to Calculate Equivalency with the CTG Recommendations for Surface Coating". Between these two complexities, the staff can only wait for EPA to publish equivalent rules in terms of mass of VOC emitted per area of surface coated, which might be easier to follow.
- (b) Norton supported a 20 TPY exemption point in 340-22-170(2) (b), rather than 15 lb./day. See major issue 5.
  - (c) Norton wanted 340-22-106 to allow high solvent points as "other pollution control devices allowed to lay idle". See major issue 2.
  - (d) Norton supported the 4.0 lb./gal air dried rule with testimony and the following letters. See major issue 4.
  - (e) John H. Daller's June 2, 1980, letter from McCloskey Varnish stated that they had water base coatings to meet 340-22-170, but only in the summer time.
  - (f) W. P. Miller's May 28, 1980, letter from Union Carbide said his water-based vehicles would not be recommended during the winter months.
  - (g) N. Roman's May 23, 1980, letter from Rohm and Hass, Philadelphia, suggested going to force dry at 140° F for 15 minutes to overcome winter drying conditions.
  - (h) Nick Mario's May 23, 1980, letter, also from Rohm and Haas, supported exemption of wood coatings.
  - (i) Paul H. Payne's May 20, 1980, letter, from Norris Paint and Varnish objected to the "less water" coatings standard which is defended in (a) above. Payne wanted traffic marking paint exempted, which was done, as it is more an architectural coating. See 340-22-170(2) (a).
  - (j) Norton's Feb. 23, 1980, letter, with attached Reliance Universal Feb. 25, 1980, letter, and Forrest Paint Feb. 21, 1980, letter are entered for the record; and many of their requests were complied with in the rule sent to hearing.
  - (k) Norton's June 17, 1980, letter again supported the 4.0 lb/gal air-dried rule and the 20 TPY exemption point. See issues 4 and 5.
16. Clement Mesavage wrote against special treatment of methanol in rule 340-22-160. The Department gives this special treatment to methanol because of the large quantities used in Oregon at resin plants, and because of the severity of the ozone problem in Medford and Portland, where stored methanol goes above a vapor pressure of 1.5 psia on the hot summer days when ozone is forming. See major issue 8.

17. R. W. Berwald wrote about different methods of controlling methanol emissions (he has plants in Springfield and LaGrande). These plants will still be exempt from 340-22-160 as no statewide rule is recommended at this time; see major issue 1. However, to answer his questions, under proposed 340-22-108, methanol emissions could be lowered to provide equivalent control to a floating roof with double seal, but not to escape the rule, as long as rule 340-22-160 gives methanol special treatment. Secondly, other equivalent control devices would be allowed under proposed 340-22-108.
18. Wm. S. Hahn, asked for exemption of architectural coatings applied by machine staining, citing many reasons in his 8 page letter. This exemption was given in 340-22-170(2)(a).
19. Stephen M. Malm, Hyster Co., wrote asking for exemption of custom coatings at their fork lift plant. The Department prefers that Hyster reduce emissions elsewhere in the plant, beyond that required by rules 340-22-170, so that under the proposed "bubble rule", equivalent VOC reductions are made. Malm supported the "bubble rule", and indicated that under that rule, his plant could reduce VOC emissions equivalent to that required by individual VOC rules.
20. H. R. Solomon wrote 17 comments as follows:
  - a. against statewide rule; see major issue 1.
  - b. wanted the definition of carbon led breakthrough, 340-22-102(4), to allow up to a 10% concentration of the inlet VOC. The Department has no problem with this EPA approved definition for single VOC applications. To date, the only carbon beds in Oregon are handling mixtures of VOC gases, so the Department, after consultation with the carbon bed users, adopted the present definition.
  - (c) did not want vapor balance equipment limited to that approved in California in 340-22-102(5). The staff is adding "or equivalent approval by other air pollution control agencies" to that definition. The California certified list has been helpful and expeditious both to applicants and to the Department's reviewing staff so far.
  - (d) did not want the definition of Modified, 340-22-102(25)(a) to forbid temporary increases of VOC while equipment is worked on. See the staff's response to the same comment from WOGA in item 5.e(5) of this memorandum.
  - (e) did not want EPA approval written into 240-22-108(1)(d), the alternative control rule. This EPA approval was required in the alternative control model rules of EPA-450/2-79-004, in the December 11, 1979, federal register, and is therefore considered necessary to obtain EPA approval of this needed rule. See major issue 6.
  - (f) In 340-22-110(1)(b) Solomon wanted "Certified Underground Storage Tank Device" replaced by "Vapor Control System". The present language conforms more to the actual way approvals are being processed by the staff.



- (g) In 340-22-110(2)(c) Solomon pointed out that EPA was allowing exemption of less than 100 TPY sources in rural nonattainment areas. The staff agrees; see major issue 3. He also wanted existing 2000 gallon tanks exempted even though the gasoline was delivered from the terminal, based upon guidance from EPA-905/2-78-001, April 1978. Vapor balance for these tanks is presently being worked out with the dealer in Portland serving them and the Department's staff. Since this VOC control is going forward, and additional vapor controls are needed in Portland, the Department would not want to exempt it now, only to reimpose it at some future date. For Oregon, such controls appear to be Reasonably Available Control Technology.
- (h) 340-22-120(c) should have vapor balance on the delivery side of bulk plants only in urban areas (Portland). This is being implemented; see major issue 3.
- (i) Solomon wants 1.5 changed to 4.0 psia in 340-22-130(3)(a) as that defines gasoline. Solomon is correct as the rules author had confused true vapor pressure with Reid vapor pressure.
- (j) Solomon wanted the compliance date for leak testing delivery trucks to be delayed from April 1, 1981, to April 1, 1982, in 340-22-137(1). The staff had always selected the April 1, 1981, date so that the vapors captured in the vapor balance systems could be transported by the trucks. The rules passed in December 1978 and re-adopted again in 1979 required trucks to be vapor tight and tested by method 32, by April 1, 1981. So even though EPA-450/2-79-004 allows compliance to be delayed to 1982, as granted by Solomon, such a delay would not mesh with vapor capture plans for Oregon, as conceived in 1978.
- (k) Solomon presented a page of test data showing that the 1" pressure drop of testing tank trucks for leaks in 340-22-137(1)(b) was not possible. The staff agrees to this, see major issue 7.
- (l) Solomon says 340-22-137(2)(b) covers delivery vessels and may flunk a tank truck, even though a 3" leak test of 340-22-137(1)(b) does not. Clearly -137(2)(b) refers to the vapor collection system, not just to the truck. Since it is the heart of the leak test, EPA must have meant it to be a requirement in addition to -137(1)(b), so the Department would not want to change it. Under proposed 340-22-108, the Department could recognize alternative ways of leak testing, as requested by Solomon.
- (m) Solomon wants "avoidable" added at the beginning of 340-22-137(2)(c), per the EPA model rule. The staff left out the word avoidable as it would only lead to wrangling with operators claiming that all leaks were accidents and unavoidable. The rule is written to prevent leaks. Certainly all visible leaks, whether avoidable or unavoidable, should be repaired immediately.
- (n) Solomon pointed out that the less stringent retest level of 2 inches in 340-22-137(3) could be deleted upon adoption of a 3 inch test standard. The staff agrees and deleted the retest standard of 2 inches. See major issue 7.

- (o) Solomon wanted 2 years rather than 4 in 340-22-153(3)(g) per the EPA model rule. Agreed to; the change was made.
21. G. J. Beuker wrote requesting redefinition of SC grade to be allowed as a dust palliative. The Department obtained EPA approval of our cutback asphalt rule; to make such a change at this time would jeopardize that approval. Perhaps Mr. Beuker could raise this subject again next year. One of the principle uses of dust palliatives cited by Beuker was on forest service roads. Nearly all such roads are outside the areas where the VOC rules apply. Only a few square miles of forest land are inside the Medford AQMA. See also Chevron USA's Bob B. Wallan's letter, July 1, 1980, against Beuker's proposal.
  22. Wallan, see above.
  23. Richard R. Thiel, EPA, Region X, Seattle, opposed 340-22-108, the "bubble rule". See major issue 6.
  24. Tim Ayers commented on the awkward coating standard definition. See reply to Norton, item 15(a) of this memorandum.
  25. James E. Hudson, wrote against vapor balance in Medford at bulk plants. See major issue 3.
  26. Ralph W. Hanley, wrote against restrictions on cutback asphalt. These restrictions were adopted on December 15, 1978, to reduce ozone in Oregon. It is hoped that the City of Salem will put up with the increased costs associated with the restrictions.
  27. Sandra Diedrich opposed VOC rules for Southwest Oregon. See major issue 1.
  28. Donald R. Arkell wrote against a statewide rule. See major issue 1.
  29. Paul H. Payne wrote asking for an exemption for traffic marking paint. This was granted in 340-22-170(2)(a). See also item 15 i.
  30. Gerald G. Palmer wrote opposing the statewide rule. See major issue 1. He also was for exempting methanol from VOC compounds because of its low photochemical reactivity. That methanol is of moderate photochemical reactivity is not denied; it was exempt from controls in Los Angeles for a decade because of that. More recent smog chamber data shows methanol reacting to form ozone on the second day of its exposure to sunlight. Since ozone violations in Oregon involve multi-day episodes, it was decided in 1978 to control moderate and low photochemically reactive compounds also. Only those of negligible reactivity were exempted. This is in agreement with EPA findings and guideline documents. It is doubtful if EPA approval could be obtained if methanol were exempted. See the VOC definition, 340-22-102(45).

31. J. M. Hatfield wrote as follows:
- a. against a statewide rule; see major issue 1.
  - b. against early compliance schedule interim dates for painting in 340-22-107(3). These dates were changed to later. It is recognized that changing paint formulation makes certain interim dates (purchase orders and beginning and completing construction) not applicable.
  - c. Hatfield asks for reformulation to be defined as a control device in the definitions and the exemptions. The Department sees reformulation as a process change, whereas an afterburner would be a control device. Changing back to high-solvent paint in the winter season should be referred to a study committee; see major issue 2.
  - d. Hatfield asks specific exemption for flat wood coating, which is covered by 340-22-200, in the exemptions to misc. painting. This has been done; see the sixth line of 340-22-120(2)(a) in the rules.
  - e. Hatfield did not want 340-22-102(16) to restrict the application of heat to warm air. This definition describes ambient air which has been heated up, by any means, and by any degree, up to 194°F. So it would not restrict the addition of heat.
  - f. Hatfield wanted a simpler expression of the coating standard; see discussion in item 15(a).
32. Dr. Walther wrote additional remarks for a simple bubble rule (see major issue 6), and for longer time to develop new inks for 340-22-210 (see earlier response to item 12. (c) in this memorandum).
33. Peter Bosserman wrote up a June 18 meeting with the Portland gasoline terminal managers. At that meeting, exemptions for slotted gage wells were recommended, as a safety measure. See additions to 340-22-160(3) to accomplish this.

The terminal managers said responsibility for hooking up vapor balance hoses should be handled like the Washington State code, WAC 173-490-202. Since this way was agreeable, rule 340-22-130 was rewritten to resemble the Washington way of handling vapor return hose hook-up.

34. D. J. Fogelquist wrote of a Washington State rule exempting service stations with a throughput of less than 200,000 gallons per year from vapor balance, WAC 173-490-040(5)(a). He urged Oregon to do the same. The staff notes that in the June 5, 1980, Federal Register, page 37824, item d. in the middle of the page, such a condition is questioned and put under conditional approval by EPA. EPA expresses approval only for a 120,000 gallons per year exemption.
35. M. J. Dougherty sent a draft of a federal standard which showed a leak test rate of 3 inches in five minutes for gasoline tank trucks. See major issue 7.

## WRITTEN TESTIMONY

WRITTEN TESTIMONY RECEIVED AT AND PRIOR TO THE MAY 21, 1980  
PUBLIC HEARING ON THE VOC RULE CHANGES ARE TOO LENGTHY TO  
COPY FOR GENERAL DISTRIBUTION.

COPIES ARE AVAILABLE FOR PERUSAL IN THE OFFICES OF  
THE DEQ AIR QUALITY DIVISION, 4TH FLOOR, YEON BUILDING,  
522 SOUTHWEST FIFTH AVENUE, PORTLAND, OREGON. CONTACT  
PETER BOSSERMAN.

WRITTEN TESTIMONY  
REGARDING CHANGES AND ADDITIONS TO VOC RULES  
OAR 340-22-100 TO 22-220  
AND  
CHANGES AND ADDITIONS TO PERMIT FEES  
OAR 340-20-155

RECEIVED MAY 21, 1980



## Department of Environmental Quality

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON, 97207 PHONE (503) 229- 6459

May 21, 1980

To: Rhea Kessler, Hearings Officer  
From: J. F. Kowalczyk, Air Quality Division  
Subject: Volatile Organic Compounds Rules

ECC  
Hearing Section

MAY 21 1980

The Department staff hereby enters into the hearings record, rule changes which are being considered in response to developments subsequent to April 6, 1980, when the Department sent a draft of the rules to the Environmental Quality Commission to be authorized for hearing.

### Gasoline Bulk Plants

Gasoline Bulk Plants in the Medford-Ashland Air Quality Maintenance Area and in the Salem SATS (Salem Area Transportation Study), and gasoline customers of those bulk plants, are all sources releasing less than 100 tons per year of Volatile Organic Compounds (VOC). Under EPA guidelines, the Medford and Salem areas are rural non-attainment areas for ozone. The Environmental Protection Agency only requires rules to impose Reasonably Available Control Technology in rural non-attainment areas to be applicable to sources of 100 tons per year of VOC or greater. Therefore, the Department is considering amending the proposed rules to exempt the delivery side of bulk plants and all their customers from vapor balance in the Medford and Salem rural non-attainment areas. The reductions from converting those operations from splash fill to submerged fill will still be realized under the rules as amended, since these reductions are considered cost effective and within the financial capability of the persons involved.

The rule, April 3, 1980 draft, proposed for this hearing imposed vapor balance on all (but the very smallest) bulk plants in Medford, Salem, and Portland areas. Based on the EPA rural ozone policy and the general indications from bulk plant owners in Medford that full control costs would possibly force them out of business, rule 340-22-120 is now proposed to be modified, deleting Salem and Medford areas from the vapor balance requirement.

### Painting

Proposed additions to 340-22-170 to cover surface coating in manufacturing miscellaneous parts (painting parts), added a less stringent 4.0 lb/gal rule for Air Dried parts, near the end of Table 1. Many Oregon unique exemptions were added to the list provided by the EPA approved model rule in proposed



Contains  
Recycled  
Materials

0AR 340-22-170(2)(a). The justifications for the 4.0 rule and some of the exemptions are brief and without extensive technical detail likely needed by EPA to consider them approvable. Therefore, if further adequate documentation is not provided as a result of this hearing, and EPA holds firm in their position; the Department will propose to the EQC to revert to the EPA 3.5 guideline. Certain exemptions on use of oil stains appear justifiable and these may be added to the list.

#### Paper Coating

The staff is negotiating minor revisions to the paper coating rules of 340-22-170, with the EPA Region X staff and the 3M Company. The 4.7 lb/gal. value in Table I may drop to 4.6; daily monitoring and monthly reporting will be required year around; the asterisk footnote in Table I will have the words "monthly average" deleted, and the words "less emissions from storage tanks subject to 340-22-160" added. These changes appear necessary in order for EPA to be convinced that RACT is being applied to this source category.

#### Gasoline Terminal Responsibility

The gasoline terminals desired that rule 340-22-130(1) be clarified that only the truck operator (or terminal operator, if present) be held responsible for hooking up vapor return hoses when getting a load of gasoline. The words "no person shall cause" more or less means that according to the Oregon Attorney General. Since the Department staff intended the opposite, and is preparing to enforce the rule in less than a year, holding all parties responsible, the Attorney General recommended this wording at the beginning of 340-22-130(1):

"After April 1, 1981, no terminal owner or operator, or truck owner or operator, shall allow....".

This would mean that, as a condition of employment and of selling and delivering gasoline, all parties must take such reasonable action as promulgating operating procedures (with threat of dismissal) that vapor return hoses are to be connected, and that gasoline is sold only if vapors are returned, etc.

#### Statewide Rules

To make the benefit of statewide VOC rules, 340-22-104, more evident, a new paragraph would be added:

"340-22-104(4)

VOC sources, whether new or modified, proposing to locate outside the areas cited in 340-22-104(3)(a), (b), and (c), are exempted from preconstruction monitoring for VOC and ozone, and are exempt from VOC offsets, unless the Department determines that such exemptions will cause violations of Federal ambient air standards."

To remove the ambiguity of the meaning of source, it is redefined; "Plant site basis" is defined, and "structure, building, facility, or installation" is defined. This all results in it being made clear that a 100 ton per year

(TYP) VOC source is the whole plant, not just one smokestack or one process or fugitive losses from large storage tanks.

Associated Oregon Industries has indicated the benefits of the statewide rule do not outweigh the costs of control, citing that there are likely more sources affected than the Department has identified. If AOI can provide some documentation of this case, the Department will reconsider its position.

#### Alternative Control Rule

This proposed rule, 340-22-108, is also known as the "bubble rule". This rule, 340-22-108 was drafted to meet Oregon needs within what was thought to be EPA's guidelines. Subsequent to its drafting, EPA published an interpretive ruling on alternative controls, or "bubbling"; see the December 11, 1979 Federal Register, pp. 71780 to 71788. The staff was unaware of this interpretive ruling until it was alerted to it by the Region X staff in April, 1980, after 340-22-108 had been authorized for hearing.

The half page rule 340-22-108 does not have the restrictions and prohibitions of the 9 page federal ruling. When EPA reviews the alternative control system proposed in Oregon, it will likely use its own rulings as criteria for approval (or disapproval).

The following features of the federal ruling are being considered for addition to the Oregon rule in order to make it approvable by EPA:

"340-22-108(3) Alternative controls can be proposed within the source class covered by each EPA control technology guideline document for VOC sources; they may not cross into another control technology guideline document, under a single alternative control, where the effect is to leave one category having less than reasonable available control technology, as defined in the guideline document."

"340-22-108(4) Compliance dates later than those specified in each rule or later than the final compliance demonstration date listed in 340-22-107(3), for any alternative control system or changes in process, are not allowed."

Delete "on a plant site basis" from 340-22-108(1).

#### Housekeeping and Clarification

Some typing and punctuation errors have been identified in the rules and are being corrected. Housekeeping changes in Table A of OAR 340-20-155(1) have been identified to make that table compatible with permitting the VOC sources previously proposed, and to make the Standard Industrial Classifications numbers proposed compatible with the staff's compliance schedule and permitting software. Rules 340-22-180 to 190 have been renumbered to conform with the Oregon Secretary of State's codifier's standard numbering policy. The Department is also accepting wording changes that make these intricate rules read more easily and be understood better.

A copy of all proposed rule changes at this time is being entered into the



hearing record and will be available to interested parties.

The Department also requests that the hearing record remain open for ~~15~~ 10 days to allow any further comments on these or other proposed changes.

gfk

PBBosserman:h  
229-6278



March 31, 1980

Our Ref: 350-80-SFK

Mr. Mel Winkleman  
20 South Stage Road  
Medford, Oregon 97501

Dear Mel:

Re your 4200 gallon truck tank body units that we have built for you. We would estimate installation of bottom loading and vapor recovery systems into these units at about \$1500.00 to \$1800.00 per compartment. The variation is due to conditions relative to installation of the equipment governed by room.

If and when you need this work performed, we will be happy to accommodate you if you will give us a call.

Thank you for calling.

Yours very truly,

PEERLESS DIVISION  
LEAR SIEGLER, INC.

Stan F. Kinne  
Engineering Coordinator

SFK/glf  
cc: Al Lopez

TO: MEL WINKELMAN MEDFORD OR 3-26 1980  
FROM: HAL GOLDMAN SEATTLE  
SUBJECT: VAPOR RECOVERY

OUR FILE:

YOUR FILE:

ENCLOSED ARE COPIES OF VARIOUS CORRESPONDENCE ON VAPOR RECOVERY AT YOUR PLANT.

INCLUDED IS THE MEMO I WROTE TO YOU AND OTHERS ON 3-22-79 TELLING YOU THAT BULK PLANTS LESS THAN 20,000 GAL/day SHOULD NOT BE CONTROLLED IN RURAL AREAS (POPULATION LESS THAN 200,000 PEOPLE). NOTE THAT THIS IS EPA'S IDEA.

AN ANALYSIS OF COST/BENEFIT AT BULK PLANTS IS ALSO INCLUDED. THIS INDICATES THAT FOR A PLANT YOUR SIZE THE COST TO RETROFIT TANKS, TRUCKS AND LOADING RACK WOULD BE \$69,000 AS OF FEB 1979. TODAY THIS WILL PROBABLY BE \$75,000 TO \$80,000. THIS DOES NOT INCLUDE AN INCINERATOR THAT WE ESTIMATE WOULD COST \$55,000.

ALSO INCLUDED IS A COPY OF OUR ROUGH ESTIMATE FOR THE INCINERATOR AND A PIPING PLAN FOR THE VAPOR LINES.

IF YOU HAVE ANY QUESTIONS PLEASE CALL ME.

P.S. OUR ESTIMATE OF THE OPERATING AND MAINTENANCE COST FOR AN INCINERATOR IS \$1800 PER YEAR.



# Hawk Oil Company ECC Hearing Section

P.O. BOX 1388 • 1050 SO. RIVERSIDE  
MEDFORD, OREGON 97501  
PHONE 503/772-5275

MAY 21 1980



May 16, 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 21 1980

AIR QUALITY CONTROL

State of Oregon  
Department of Environmental Quality  
522 S.W. 5th Avenue  
PO Box 1760  
Portland, Oregon 97207

This letter is in response to Mr. Bosserman's letter dated March 13, 1980, regarding the change to 10,000 gallon per month from the original 240,000 gallon per year exemption from vapor recovery.

We are the Exxon Jobber serving Southwest Oregon. We serve two markets who qualify under the 10,000 gallon rule. One market averaged 9,543 gallons per month last year, but did purchase over 10,000 during four months of 1979. The highest month was 12,334 gallons, which really resulted from delivery schedules, for they only purchased 7,765 gallons the prior month. The other market situation is very similar. That market averaged 8,805 per month, but did purchase over 10,000 gallons five months of 1979.

We are trying to cooperate with your office, and will be investing thousands of dollars on vapor recovery equipment for our two truck and trailer transports, and the required plumbing at the service stations they serve. Due to the population size of the Medford-Ashland Air Quality Area, we don't feel these investments are required, but we do want to do our part in improving the Rogue Valley Environment. However, under Federal Laws, our margins are controlled. We sell gasoline to these two markets at the same price our dealers pay, and they take full transport deliveries. These two markets already cost us over 2¢ per gallon in additional expense, and are economically marginal to serve now. To continue serving these two accounts under the 10,000 gallon per month rule, would require thousands of dollars in improvements to our bulk plant and small delivery trucks. The estimates start from \$40,000, and some say the actual cost could reasonably double that figure. These two markets represent about 3% of our total annual gasoline sales. Obviously, with the tremendous investments required, we would simply have to stop serving these accounts. Our situation is fairly typical. No bulk plant in this area would make these investments, and the 10 or 12 accounts affected by this 10,000 gallon rule would simply lose their supply.

The real financial burden would be inflicted on our two market owners. These are both small "Ma and Pa" type rural stores. Gasoline is critical to their overall sales and profitability. The gasoline does cover a substantial portion of their overhead, and does bring folks in, who often purchase other market items. With their limited total sales, they would

not survive without their gasoline sales. There is no way to adopt their current 550 and 1,000 gallon underground tanks for vapor recovery. Their only alternative would be to install two or three new tanks, at a cost ranging from \$10,000 to \$20,000, plus the related increased inventory investments of approximately \$8,000. Financially, this alternative is a complete impossibility for these small accounts. Again, this 10,000 gallon per month rule, will simply force these folks out of business.

We understand that the State of Washington recently received EPA's approval for their state program, which included the 240,000 gallon per year criteria. As the Southern Oregon distributors mentioned last year, we could all live with that rule. EPA reports that nationwide, fuel deliveries contribute 1.8% to the total V.O.C. problem. As you know, with the mills and the 3M paper coating plant, this 1.8% figure would be far less in the Medford-Ashland area. The 10 or 12 accounts affected by the 10,000 gallon per month rule probably account for no more than 5% of the total gasoline deliveries in this area. It is totally unreasonable to require these thousands and thousands of dollars, and in reality, force people out of business, to try and attain a completely unmeasurable improvement in Environmental Air Quality.

We wish to continue serving these two stores. Their owners have worked hard and invested what they have in their business. We, and these market owners, will greatly appreciate your involved commitment to the original 240,000 gallon per year criteria. Based on all the above, your office should be able to reasonably sell this idea to EPA, particularly since they just approved it for our neighbors in Washington. Per Mr. Bosserman's letter, the Portland area is the only one that should be considered for the 10,000 gallon rule anyway, and I'm sure it's unreasonable for them too. Thanks for your efforts.

Sincerely,



Mike C. Hawkins  
President

MCH/cs

MAY 21 1980

**WILLIAM C. CORNITIUS**

**JOBBER SHELL PRODUCTS**



POST OFFICE BOX 477  
MEDFORD, OREGON 97501  
PHONE (503) 779-6345

MAY 21 1980

May 20, 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**RECEIVED**  
MAY 21 1980

**AIR QUALITY CONTROL**

Environmental Quality Commission  
Post Office Box 1760  
Portland, Oregon 97206

Gentlemen:

In October of 1978, it was my privilege to address your commission regarding the problems created by the proposed DEQ Rules concerning bulk gasoline plants, gasoline trucks and customer's storage tanks. The commission adopted regulations at the conclusion of this meeting which exempted small distributors and jobbers like myself from these very stringent regulations.

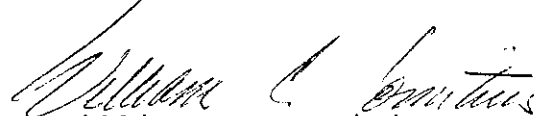
A year and a half has now passed and we are again confronted with new rules, amendments and changes which, in effect, completely change the regulations covering bulk plants and as adopted by the commission in 1978.

In view of the forementioned and considering the fact that the air pollutants level has been in the "good" to occasionally "moderate" level for this past year, I would like to suggest a moratorium be placed on adopting standards governing distributors and jobbers for two or three years. This would allow time to evaluate what remedies are needed, the cost effectiveness of these remedies, and if the problem of improving our air is really addressed. Wouldn't we be better off concentrating in other areas; ie, auto inspections, improved traffic flow, synchronized signals, off street parking on Central and Riverside, etc.?

It is my belief that everyone's interest would be best served if we adopted a policy of regulation on an incremental basis; and study the results as we go. The removal of the wigwams in the area have significantly improved our air quality. Perhaps if some of the other afore-mentioned (cars, traffic flow) were implemented, we would achieve what we are striving for.

I urge you to consider a moratorium - it offers a great many advantages to this community.

Respectfully,

  
William C. Cornitius

MAY 21 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 21 1980

TESTIMONY - PROPOSED VOC STANDARDS  
METHANOL STORAGE TANKS MAY 21, 1980

AIR QUALITY CONTROL

My name is Kenneth Dunder and I am Senior Development Chemist with Georgia-Pacific's west coast resin development laboratory in Albany. I would like to present testimony on the proposed regulations to control volatile organic carbon emissions from methanol storage tanks in Oregon.

Georgia-Pacific operates resin manufacturing plants at Coos Bay and Albany. The resins from these plants are used primarily as adhesives for wood products such as plywood and particleboard. Methanol is a basic raw material used at these plants and there are methanol storage tanks at both facilities.

Georgia-Pacific feels that the proposed regulations should not be adopted for the following reasons:

1. The regulations as developed by EPA were not meant to apply to methanol tanks located in attainment areas for hydrocarbons.
2. Methanol has a low photochemical reactivity.
3. The cost of retrofit control for Georgia-Pacific is unreasonable and the benefits to air quality would be insignificant.

#### REGULATORY APPLICABILITY OF USING EPA'S MODEL GUIDELINE DOCUMENTS

The application to methanol storage tanks of the model rules contained in EPA guideline documents as listed under item B of the EQC's staff report is a misapplication of the intent of the guideline. The guidelines were intended for control of storage tanks in which the vapor pressure was clearly above 1.5 psia. In order to reach that vapor pressure, methanol would have to be at 62° Fahrenheit or greater. With the generally cool climate in western Oregon, it is unlikely that the temperature in a storage tank would exceed 62° for more than a few days per year.

In EPA's "Recommended Policy on Control of Volatile Organic Compounds" published in the Federal Register, Volume 42, number 131, methanol is listed as a volatile organic compound of low photochemical reactivity. This policy states that methanol, among other compounds listed as having low photochemical reactivity, does not contribute large quantities of oxidant under many atmospheric conditions. It is only during multi-day stagnations that methanol would yield significant oxidants. EPA further recommended that if resources are limited and if sources are located in areas where prolonged atmospheric stagnations are uncommon, priority should be given to controlling more reactive VOC's first.

## IMPACT ON GEORGIA-PACIFIC

Georgia-Pacific's engineering staff has calculated the methanol emissions from its Coos Bay and Albany methanol storage tank facilities. We have also estimated the cost of installing floating roof tanks to comply with the regulation as proposed. A break-down of these calculations and cost estimates is as follows:

### Coos Bay, Oregon

Coos Bay presently utilizes two methanol storage tanks. Tank #1 has a diameter of 32 feet, having a total storage capacity of 189,500 gallons and tank #2 has a 44½ foot diameter, having a total storage capacity of 393,200 gallons of methanol. The tanks could not be retrofitted with floating roofs because of their type of construction and age. Emissions from the tanks calculated using EPA's compilation of air pollutant emission factors AP-42 are 33.6 lbs/day or 6.1 tons/yr of methanol emitted. Since these tanks can not be retrofitted with floating roofs, compliance cost was estimated based on abandoning the two existing storage tanks and constructing one new 500,000 gallon methanol storage tank at the site. The cost for installation of the new tank is estimated to be \$145,000.

### Albany, Oregon

Albany has one 32 foot diameter methanol storage tank having a capacity of 192,500 gallons. The tank currently uses a cooled vent condenser to reduce methanol emissions. Since the tank is a newer installation, it could be retrofitted with a floating roof having double seals. Methanol emissions from the storage tank at Albany are calculated to be 5.1 tons/yr. The cost of compliance with the regulations as proposed is based on retrofitting the existing tank with a floating roof. The cost does not allow for loss in production while the tank is being retrofitted. Retrofitting of the existing tank is estimated to be \$30,000.

### SUMMARY

The inclusion of methanol storage tanks is not required to have an approvable SIP since methanol is over the 1.5 psia EPA guideline for a few days per year and is of low photochemical reactivity. Methanol emissions from Georgia-Pacific's Coos Bay and Albany facility total 11.2 tons/yr. Cost of control by installing floating roof tanks as proposed under the regulation are estimated to be \$175,000. Georgia-Pacific feels that this large cost to reduce a relatively small amount of low reactivity emissions is not warranted. We respectfully recommend that methanol storage tanks be dropped from the regulation as proposed. We would be happy to meet with the DEQ staff to further document the information presented.



# Western Oil and Gas Association

United Airlines Building, 2033 Sixth Avenue, Suite 255, Seattle, Washington 98121  
(206) 682-9255

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**RECEIVED**  
MAY 21 1980

**AIR QUALITY CONTROL**

May 19, 1980

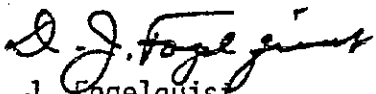
Department of Environmental Quality  
State of Oregon  
P.O. Box 1760  
Portland, Oregon 97207

Attn: Mr. Peter B. Bosserman

Gentlemen:

The Western Oil and Gas Association, a trade association representing the companies that conduct much of the petroleum operations in the western United States, including the state of Oregon, submits the attached comments relative to proposed changes to the Oregon VOC regulations (April 4, 1980 version).

Very truly yours,

  
D. J. Fogelquist  
Northwest Regional Manager

DJF:vs  
Attachment

EQC  
Hearing Section

MAY 21 1980

WESTERN OIL & GAS ASSOCIATION  
COMMENTS ON PROPOSED AMENDMENTS  
TO OREGON VOC RULES (4/4/80 Version)

- (1) P. 1, Table A -- Fees should be specified as to whether they are one-time (such as those associated with authorities to construct) or annual (like those associated with annual operating permits) or other.
  
- (2) P. 2, Section 340-22-100(3) and P. 9, Section 340-22-104(2) -- The requirement of RACT statewide is unnecessary and unjustified. The CAAA of 1977 require RACT controls in nonattainment areas that cannot meet the Federal primary air quality standards by the end of 1982. There is no such requirement for attainment areas. Requiring RACT statewide penalizes industries in eastern Oregon, coastal Oregon, and other areas for Portland, Salem and Medford's pollution problems. Furthermore, RACT controls in Baker or Coos Bay do nothing to help air pollution in Portland, Salem, or Medford.

Comments on page 6 of the DEQ memo (dated April 18, 1980) accompanying the proposed changes in the VOC rules indicates that DEQ believes it is doing industry a favor by forcing RACT on major sources statewide. The memo is sketchy at best, but it appears that DEQ believes that a new major source impacting a nonattainment area may be exempted from an emissions offset requirement if statewide RACT is in place. The basis for the

staff position appears to be an internal EPA memo. The memo was written on May 4, 1979 prior to the Alabama Power decision (June 18, 1979) and the subsequent proposed amendments to EPA's offset and PSD regulations (September 5, 1979). The proposed amendments do not endorse and, in fact in our opinion, do not even allow an interpretation that supports the concept in the Rhoads' memo.

There is a serious question in our minds as to why the DEQ is proposing statewide RACT on major sources without at the same time placing provisions in the regulations that explicitly state that no offsets will be required. There is no question that DEQ, with the approval of EQC, can impose statewide controls if it chooses to do so. However, we don't believe DEQ can deliver on the offset exemption. A conversation with members of the EPA-Region X-Air Programs' staff last November indicated that they, too, were skeptical. We believe that the offset exemption would have to be disallowed under the provisions of Sections 173 and 110 of the Clean Air Act (as amended) and under the existing and proposed provisions of the EPA offset and PSD regulations. If (when) the offset exemption were disallowed the Oregon businessmen in the clean air areas would have spent millions of dollars for nothing because of an ill-conceived DEQ strategy.

Because of the uncertainty over the validity of the statewide

RACT/offset exemption strategy, we request that the statewide RACT requirement for major sources outside of the nonattainment areas be deleted from the VOC package scheduled for adoption at the EQC meeting on June 20, 1980, and that a workshop be held with DEQ and EPA-X staff to review the matter. Since statewide RACT is not required for SIP approval, our request would in no way jeopardize the approvability of the Oregon SIP.

- (3) P. 3, Section 340-22-102(5) and P. 10, Section 340-22-107(1) -- These sections refer to certification of hardware and test procedures of various California air pollution control agencies. We see no reason for the State of Oregon to be formally and directly tied to the actions of California agencies. This requirement forces Oregon businessmen to follow administrative actions in California to determine if they comply with Oregon regulations.

We believe that the Oregon DEQ regulations should stand independently of California agencies. We recommend that references to California certifications, test procedures, and regulations be deleted from the proposed DEQ regulations and that DEQ adopt its own criteria subject to public hearing. As a practical matter, the California test procedures might serve as a starting point in the development of Oregon test procedures and California equipment certifications with supporting data should be allowed in support of applications for Oregon

certification. However, we don't believe that regulatory actions in these areas by California agencies should be directly and automatically translated into changes in Oregon regulations as the current proposal specifies.

- (4) P. 4, Section 340-22-102(18) -- Defines "gasoline dispensing facility." The inclusion of "boat and airplane gasoline tanks" in this definition makes it substantially different from the EPA guidelines. We don't understand the reason for this. Deliveries to airports and marinas are covered under Section 340-22-110 as currently proposed even without boats and airplanes in the definition. Whether or not this definition will cause us problems depends on which future regulations use the term "gasoline dispensing facility." To prevent possible future problems and to make it consistent with the common concept (including EPA's) of a gasoline dispensing facility, we recommend deletion of the words "boat, or airplane."
- ✓ (5) P. 6, Section 340-22-102(25)(a) -- Routine maintenance and repair are not considered "modifications" under this section "unless there is an increase in emission." In many cases routine maintenance and repairs are likely to result in a temporary increase in emissions. We don't believe that such a temporary situation should be considered a physical change or modification. EPA's Emission Offset Interpretative Ruling supports our position. It states "A physical change shall not include routine

maintenance, repair, and replacement." This is the same language as Subsection (25) (a) with the phrase -- "unless there is an increase in emission" -- deleted. We recommend that the phrase be deleted.

- (6) P. 7, Section 340-22-102(31) -- Defines "petroleum refinery." The last sentence addresses "stripping" of products shipped together. "Stripping" has a definite meaning in the petroleum industry jargon which is something different than the separation of products shipped together that is covered in this section. To avoid confusion, we recommend that the words "by stripping" be deleted so that the last sentence reads:

"'Petroleum refinery' does not include asphalt blowing or separation of products shipped together."

In some cases a refinery may be on the same property or adjacent property to another facility which is under the control of the same corporation but is functionally different from the refinery. Under DEQ's proposed definition it is unclear as to whether or not the second facility would be considered as part of the refinery. We don't believe that it should be and recommend that the language be clarified. We believe that the following sentence would eliminate this concern if it were included in the "petroleum refinery" definition:

"At locations where a non-refinery facility under the control of the same owner is on the same property or adjacent property as a petroleum refinery, the non-refinery portion of the installation shall not be required to comply with the petroleum refinery regulations."

- (7) P. 14, Section 340-22-110(1)(b) -- discusses vapor recovery requirements for underground gasoline storage tanks. This section requires a system "... capable of collecting the vapor from volatile organic liquids and gases so as to prevent their emission to the outdoor atmosphere." (Emphasis added.) We view this as a "de facto" requirement for 100% control which we see as unreasonable and unachievable. We recommend that the proposed Subsection (b) be deleted and replaced with the following:

"(b) The tank is equipped with a certified underground storage tank device to allow vapor-balancing of gasoline vapors with the delivery vessel and the device is connected and in operation during all gasoline transfers to the tank."

- (8) P. 15, Section 340-22-110(2)(c) and P. 17, Section 340-22-120(1)(c) -- discuss exemptions for small bulk plants and their

customers. Both sections provide exemptions for the same source categories (small bulk plants and their customers) but the criteria for exemption are different. Section 340-22-120(1)(c) grants an exemption for small (< 4,000 gal. per day) bulk plants from the requirement for vapor recovery at its rack (Section 340-22-120(1)(b)). It also grants an exemption for small bulk plant's customers (no throughput cutoff) from the requirement for Stage I control (Section 340-22-110(2)(b)). However, Section 340-22-110(2)(c) contradicts the Stage I exemption in Section 340-22-120(1)(c) for the customers by imposing a maximum throughput limitation of 10,000 gallons/month for exemption eligibility.

We continue to support the position stated by Western Oil & Gas at the DEQ hearing on VOC rule changes on May 8, 1979. Bulk plants with throughputs of 20,000 gallons/day or less (annual daily average) should be exempt from vapor recovery at their loading racks; i.e., exempt from Section 340-22-120(1)(b). Customers of exempt bulk plants should be exempt from the requirements for Stage I controls (Section 340-22-110(1)(b)). Specifically, we recommend that Section 340-22-110(2)(c) be deleted and that the 4,000 gal./day throughput cutoff be changed to 20,000 gal./day.

We believe that this is a reasonable request in view of the high control costs and the small amount of VOC emissions



controlled. Information on compliance costs and cost effectiveness were presented to DEQ at the May 8, 1979 hearing, and we understand that some member companies will be submitting more data at the May 21, 1980 hearing. It may be worth pointing out that the State can deviate from EPA's presumptive norm, the Control Techniques Guidelines (CTG), where economic considerations justify it. In support of this position, we offer the following excerpts from EPA's "General Preamble for Proposed Rulemaking on Approval of Plan Revisions for Nonattainment Areas -- Supplement (on Control Techniques Guidelines)" in the September 17, 1979 Federal Register (pp. 53761):

"The presumptive norm (CTG) is only a recommendation. For any source or group of sources, regardless of whether they fall within the industry norm, the State may develop case-by-case RACT requirements independently of EPA's recommendation. EPA will propose to approve any submitted RACT requirement that the State shows will satisfy the requirements of the Act for RACT, based on the economic and technical circumstances of the particular sources being regulated. ... For SIPs that must include RACT limitations, each CTG will be part of the rulemaking record on which EPA's decision will be based. However, the CTG does not establish conclusively how issues must be resolved. In reviewing an individual regulation, EPA will consider not only the information in the CTG, but also any material included in the State submittal and in public comments on the submittal."

We, therefore, request that DEQ pursue the bulk plant/customer exemptions with EPA on a basis of the compliance cost/cost effectiveness information supplied by industry.

- (9) P. 15, Section 340-22-110(3) requires that the builder of the storage tank comply with the Stage I vapor control rule. We are not sure of the intent of this requirement, but it seems inappropriate to make the tank fabricator responsible for the proper use of the Stage I system.
- (10) P. 17, Section 340-22-120(1)(e) and P. 18, Section 340-22-130(3)(d) require the reporting of all gasoline spills over 5 gallons. We see the requirement to report every spill over 5 gallons as unreasonable. Furthermore, the references to "... report the spillage in accordance with 340-21-065 to -075" are inappropriate. Sections 340-21-065 through 340-21-075 deal with requirements for reporting scheduled maintenance and upset/breakdown of air pollution control equipment. A 5-gallon gasoline spill has nothing to do with deactivation of an air pollution control device.

In our opinion, the added cost to industry and DEQ of a requirement that requires reporting of 5-gallon spills can in no way be justified by its impact on air quality which would be immeasurable. We recommend that the last sentence of both Section 340-22-120(1)(e) and Section 340-22-130(3)(d) be deleted.

- (11) P. 17-18. Several of the sections contain absolutes such as "All displaced vapors... are vented only to ..." and "... vapors are tight at all times." Recent enforcement action in California centered on the literal interpretation of such absolutes. We have been working with the agencies to define more reasonable and quantitative terms. We would welcome the opportunity to discuss such language with DEQ and review work on new inspection methods that WOGA has been looking at in California.
- (12) P. 19, Section 340-22-137(1). This section seems to imply that the terminal operator or the service station operator must serve as a policeman to observe each loading or unloading and enforce DEQ's rules for delivery vessel operation. At terminals where common carrier drivers do their own loading, this concept is unworkable and unacceptable. We would be pleased to work with DEQ on the division of responsibility in this matter.
- (13) P. 19, Section 340-22-137(1)(b) requires a pressure test for delivery vessels. The DEQ maximum pressure change of 1 inch of H<sub>2</sub>O is much more stringent than the 3 inches of H<sub>2</sub>O pressure change recommended in the EPA CTG. DEQ offers no justification for the more stringent level other than California is trying it. We recommend that the 1 inch of H<sub>2</sub>O pressure change in Section 340-22-137(1)(b) be revised to 3 inches of H<sub>2</sub>O in line with EPA's CTG. The pressure change in Section 340-22-137(3) should also be changed to 3 inches of H<sub>2</sub>O to be consistent with the CTG.
- (14) P. 20, Section 340-22-137(2)(b). As mentioned in Comment (11) above, alternate inspection methods have been and are being

developed. We believe that this section should provide for the use of alternate methods, if the methods are approved by DEQ.

- (15) P. 20, Section 340-22-137(2)(c) discusses visible liquid leaks. "Visible liquid leaks" is not quantitative. We recommend that the sentence be changed to make it more specific by adding the words "in excess of three drops per minute from any single leak source" after the words "Visible liquid leaks."
- (16) P. 19, Section 340-22-137. The CTG for tank truck and vapor collection systems suggests (P. 5) that the operator, after at least two complete annual monitoring checks, be allowed to request, in writing, a longer period between subsequent leak checks. We recommend that language be placed in the proposed regulation to permit the DEQ to grant such a request if appropriate, based on the operator's data for previous checks.
- (17) P. 23, Section 340-22-153(3)(a) and P. 25, Section 340-22-153(3)(g) discusses record retention for refinery leak inspections. Subsection (a) places no time limits on the period of record retention for "all testing conducted under this rule." Subsection (g) in the same rule specifies a minimum of four years. We recommend that the rule be made consistent with the CTG by limiting the retention periods in Sections 340-22-153(3)(a) and 340-22-153(3)(g) to two years.

(18) P. 24, Section 340-22-153(e). This section requires the preparation and submittal of a detailed quarterly report on inspection and maintenance of leaking components. The information required in these reports is included in the records required under Section 340-22-153(f) and is available to DEQ inspectors upon request. Therefore, in our opinion, the reporting requirement serves no useful purpose and we recommend that Section 340-22-153(e) be deleted.

(19) P. 25, Section 340-22-153. An exemption for components handling non-volatile petroleum liquids (TVP < 1.5 psia) should be included. These components should exempt from all provisions of Section 340-22-153.

(20) P. 28, Sections 340-22-160(4)(c)(G)(iii) and (H) require the preparation and maintenance of "throughput quantities" for external floating roof storage tanks. The requirement for the preparation and maintenance of throughput records is an unnecessary burden and is totally unrelated to compliance with the secondary seal requirements. This position is supported by the absence of "throughput" in the recordkeeping recommended in the CTG (P. 5-4). We recommend that Section 340-22-160(4)(c)(G)(iii) be deleted and that "throughput quantities" be struck from Section 340-22-160(c)(H). If throughput data is needed for some other reason such as updating emission inventories, the information should be requested in writing on an as-needed basis.

(21) P. 29, Section 340-22-160(4)(c)(I). This section requires that the inspections be submitted to DEQ. This creates an unnecessary burden for the tank operators. Consistent with the CTG, we recommend that these records be maintained for inspection of DEQ, at DEQ's request.

(22) P. 29, Section 340-22-160(4)(c)(L). If DEQ requires more frequent monitoring, it should be justified on a case-by-case basis with consideration given to the tank operator's past performance.

Mr Krohn

EQC  
Hearing Section

MAY 21 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 21 1980

**AIR QUALITY CONTROL**

UNION OIL STATEMENT  
BEFORE THE  
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY HEARING  
ON VOLATILE ORGANIC COMPOUNDS  
MAY 21, 1980

---

GOOD AFTERNOON. MY NAME IS LES KROHN. I AM MANAGER OF ENVIRONMENTAL CONTROL FOR UNION OIL 76 DIVISION. WE HAVE SEVERAL BRIEF COMMENTS ON THE PROPOSED CHANGES TO THE OREGON VOC REGULATIONS, BUT BEFORE I ADDRESS THESE, I WOULD LIKE TO SAY THAT WE SUPPORT THE TESTIMONY GIVEN BY THE WESTERN OIL AND GAS ASSOCIATION (WOGA). WE HAVE THREE POINTS WHICH WERE TOUCHED ON IN THE WOGA COMMENTS THAT WE WOULD LIKE TO EXPAND ON.

FIRST IS THE REQUIREMENT FOR RACT CONTROLS ON ALL MAJOR SOURCES (>100 TONS/YR.) STATEWIDE. THE WAY WE READ THE STAFF REPORT THAT ACCOMPANIED THE PROPOSED REGULATION CHANGES, THERE APPEARS TO BE AN OBSCURE PROMISE OF AN EXEMPTION FOR NEW "MAJOR RURAL SOURCES" FROM EPA'S OFFSET POLICY IF RACT IS ADOPTED FOR EXISTING MAJOR SOURCES STATEWIDE. WE SEE NOTHING IN THE REGULATION ITSELF THAT ADDRESSES THIS EXEMPTION AT ALL. THEREFORE, OUR COMMENTS ON THIS CONCEPT WILL HAVE TO BE GENERAL BECAUSE THE SPECIFICS OF THE EXEMPTION HAVE NOT BEEN DEFINED BY DEQ.

THE FIRST POINT THAT WE WOULD LIKE TO MAKE IS THAT, CONTRARY TO A STATEMENT IN THE DEQ STAFF REPORT, OFFSETS ARE NOT AUTOMATICALLY REQUIRED IN AN ATTAINMENT AREA FOR NEW MAJOR SOURCES. THE SOURCE

MUST INSTALL BACT AND UNDERGO A PSD REVIEW -- OFFSETS ARE NOT MANDATORY EVEN WITHOUT STATEWIDE RACT ON EXISTING MAJOR SOURCES. IF THE NEW MAJOR VOC SOURCE IS IN AN ATTAINMENT AREA THAT IS ADJACENT TO A NONATTAINMENT AREA AND THE SOURCE WOULD CONTRIBUTE TO CONTINUED VIOLATION OF THE OZONE AIR QUALITY STANDARD IN THE NON-ATTAINMENT AREA, THEN OFFSETS WOULD BE REQUIRED. IF, HOWEVER, THE VOC SOURCE OWNER CAN DEMONSTRATE THAT THE EMISSIONS WILL HAVE VIRTUALLY NO EFFECT UPON ANY OZONE NONATTAINMENT AREA, THEN THE SOURCE MAY BE EXEMPTED FROM THE OFFSET REQUIREMENT (EPA OFFSET RULING, 1/16/79, FEDERAL REGISTER 44, #11: P. 3283). STATED ANOTHER WAY, IF THE SOURCE CANNOT DEMONSTRATE THAT THERE IS NO SIGNIFICANT IMPACT ON A NONATTAINMENT AREA, AN EXEMPTION FROM THE OFFSET REQUIREMENT CANNOT BE GRANTED. THIS IS TRUE WHETHER STATE-WIDE VOC REGULATIONS ARE IN PLACE OR NOT. THEREFORE, IN OUR OPINION, A BLANKET EXEMPTION FROM OFFSET REQUIREMENTS FOR MAJOR VOC SOURCES THAT IMPACT NONATTAINMENT AREAS IS PRECLUDED BY FEDERAL REGULATION (OFFSET RULING) AND POSSIBLY BY SECTIONS 110 AND 173 OF THE CLEAN AIR ACT. WE SEE DEQ'S ATTEMPT TO GAIN OFFSET EXEMPTIONS BY FORCING STATEWIDE VOC REGULATIONS AS A MISGUIDED STRATEGY DOOMED TO FAIL. AS ONE OF THE COMPANIES THAT WOULD BE BURDENED WITH PAYING FOR THIS FAILURE, WE RECOMMEND THAT THE STATEWIDE VOC RACT REQUIREMENT BE DELETED AND THAT RACT REQUIREMENTS BE LIMITED ONLY TO THE NONATTAINMENT AREAS.

THE SECOND POINT WE WOULD LIKE TO ADDRESS IS THE REQUIREMENT THAT TERMINAL OPERATORS AND SERVICE STATION DEALERS ENFORCE DEQ'S



REGULATION FOR DELIVERY VESSELS (SECTION 340-22-137). IN ADDITION TO OUR OWN TRANSPORTS, COMMON-CARRIERS ALSO LOAD AT UNION OIL TERMINALS IN OREGON. DRIVERS LOAD THEIR OWN TRUCKS; TERMINAL PERSONNEL ARE NOT DIRECTLY INVOLVED IN THE LOADING OPERATION. AT SERVICE STATIONS, DELIVERIES ARE OFTEN MADE DURING HOURS THAT THE STATION ISN'T OPEN AND, THEREFORE, IS UNATTENDED. IN OUR OPINION, IT IS UNREASONABLE AND UNACCEPTABLE TO REQUIRE A TERMINAL OPERATOR OR A SERVICE STATION DEALER TO ASCERTAIN WHETHER A DELIVERY VESSEL (OVER WHICH HE HAS NO DIRECT CONTROL OR KNOWLEDGE) IS IN COMPLIANCE WITH DEQ'S LEAK TEST REQUIREMENT BEFORE THE VESSEL CAN BE LOADED OR UNLOADED. THE PROPOSED REQUIREMENT WOULD TURN OUR TERMINAL OPERATORS AND UNION OIL DEALERS INTO UNOFFICIAL DEQ ENFORCEMENT INSPECTORS AND COULD WELL REQUIRE THEM TO HIRE ADDITIONAL PERSONNEL TO PERFORM THIS FUNCTION. WE BELIEVE THAT THIS IS UNJUSTIFIED AND WE RECOMMEND THAT SECTION 340-22-137 BE REVISED SO THAT COMPLIANCE IS THE SOLE RESPONSIBILITY OF THE DELIVERY VESSEL OWNER/OPERATOR.

THE THIRD AND FINAL POINT WHICH WE WOULD LIKE TO ADDRESS IS THE REQUIREMENT FOR VAPOR RECOVERY ON THE BULK PLANT LOADING RACKS AND THE ASSOCIATED REQUIREMENT FOR STAGE I CONTROLS ON DELIVERIES TO THE BULK PLANTS' CUSTOMERS. AS THE WOGA TESTIMONY POINTS OUT, THE EXEMPTION FOR BULK PLANT RACK VAPOR CONTROLS IN THE PROPOSED RULE IS CONFUSING AND CONTRADICTORY. IT'S NOT CLEAR TO US WHICH BULK PLANTS ARE EXEMPT. WE BELIEVE THAT SUBMERGED FILL SHOULD BE THE ONLY REQUIREMENT FOR THE RACKS AT BULK PLANTS WITH GASOLINE THROUGHPUTS OF 10,000 GALLONS PER DAY OR LESS. WE BELIEVE THAT A 10,000

GALLON/DAY EXEMPTION CAN BE JUSTIFIED BECAUSE OF THE VERY SMALL AMOUNT OF VOC EMISSIONS FROM THESE BULK PLANTS. LET ME EXPLAIN OUR BASIS FOR TAKING THIS POSITION. A BULK PLANT WITH A GASOLINE THROUGHPUT OF 10,000 GALLON/DAY THAT IS EQUIPPED WITH A VAPOR BALANCE SYSTEM FOR TRANSPORT DELIVERIES TO THE BULK PLANT AND WITH SUBMERGED FILL FOR LOADING OF THE BULK PLANT'S TRUCK(S) WILL EMIT LESS THAN 10 TONS OF VOC PER YEAR. IN THE SEPTEMBER 5, 1979 REVISION TO THE FEDERAL PSD/OFFSET REGULATIONS, EPA HAS OFFICIALLY RECOGNIZED AN EMISSION LEVEL OF 10 TONS OF VOC PER YEAR AS "DE MINIMUS," THAT IS, NOT SIGNIFICANT. UNDER THIS REGULATION, A NEW SOURCE WHICH EMITS LESS THAN 10 TONS OF VOC PER YEAR IS NOT REQUIRED TO UNDERGO A FULL PERMITTING REVIEW OR TO USE BACT/LAER. IT SEEMS REASONABLE TO US THAT, IF A NEW SOURCE CAN COME IN AND EMIT UP TO 10 TONS OF VOC/YEAR WITHOUT CONTROLS, AN EXISTING BULK PLANT WHICH IS AN IMPORTANT LINK IN THE PETROLEUM DISTRIBUTION SYSTEM FOR MANY OREGON INDUSTRIES, PARTICULARLY AGRICULTURE AND LOGGING, SHOULD BE ALLOWED THE SAME EMISSION RATE. WE, THEREFORE, REQUEST THAT BULK PLANTS WITH GASOLINE THROUGHPUTS OF 10,000 GALLONS/DAY OR LESS BE EXEMPTED FROM THE REQUIREMENT FOR VAPOR BALANCE SYSTEMS ON THEIR LOADING RACKS AND THAT ALL CUSTOMERS OF EXEMPT BULK PLANTS BE EXEMPT FROM STAGE I VAPOR BALANCE SYSTEM REQUIREMENTS.

THANK YOU FOR YOUR CONSIDERATION OF OUR COMMENTS. IF YOU HAVE ANY QUESTIONS, I WOULD BE PLEASED TO ANSWER THEM.

Shell Oil Company



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EGC  
Hearing Section

MAY 21 1980

May 15, 1980

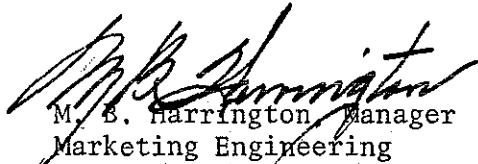
Department of Environmental Quality  
Air Quality Division  
Post Office Box 1760  
Portland, Oregon 97207

Gentlemen:

The proposed revised regulations for Volatile Organic Compound control according to the draft of April 3, 1980, have been reviewed and our comments are attached.

We appreciate the opportunity to be heard and hope that our input will be of assistance to you in the development of good regulations.

Sincerely yours,

  
M. B. Harrington, Manager  
Marketing Engineering

Attachments

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 21 1980  
**AIR QUALITY CONTROL**

COMMENTS OF SHELL OIL COMPANY  
ON PROPOSED REVISIONS TO OREGON RULES  
FOR CONTROL OF VOLATILE ORGANIC COMPOUNDS

The Western Oil and Gas Association is submitting testimony at this hearing concerning several sections of the proposed revisions to the rules, and Shell hereby endorses these comments.

In the interest of avoiding repetition, the comments which follow will be limited to only several items which are felt to be worthy of particular emphasis.

First is Section 340-22-104(2), General Requirements for New and Existing Sources. This would require certain emission sources to install VOC controls even though located in an attainment area of the State. EPA does not require such measures in the State Implementation Plan and we urge that the item be deleted, so as not to impose unnecessary cost burdens on the citizens and industries of the State.

Second, is Section 340-22-107, Compliance Determination along with 340-22-102(5), Definitions.

These suggest or describe that control equipment certified by the California Air Resource Board is that which will be approved for use in Oregon. In Shell's testimony at your hearing on proposed rules on October 16, 1978, we commented at some length on this and urged deletion of the reference to certification and test procedures of any particular regulatory group. A copy of that testimony is furnished as Attachment A hereto. We suggested substituting the wording:

"Applicants are encouraged to submit designs which are supported by thorough test data or which have been tested and approved for use by other state or federal agencies."

We again urge this change.

Last, is Section 340-22-137 - Testing Vapor Transfer and Collection Systems. Paragraph (1)(b) would limit allowable pressure change in the testing of delivery vessels for tightness to 1 inch water column (w.c.) in 5 minutes. This is the same as the limit in the California Air Resources Board (ARB) test procedures which became effective July 1, 1979, and which is currently the subject of discussions between that agency and transportation and petroleum industry representatives as to reasonableness and attainability.

EPA's Control Techniques Guideline (CTG) on Control of VOC Leaks for Gasoline Tank Trucks and Vapor Collection Systems (December 1978) specifies an allowable pressure change of 3 inches w.c. rather than 1", and we can find no standards more stringent than this except those of the California ARB. According to information from the discussions mentioned above, there has been little testing

for tightness by anyone since the 1" w.c. limit became effective. However, our tests indicate that such limit is unreasonably stringent because we believe that none of the delivery tank appurtenances available on the market today are of sufficient precision or rigidity to maintain such tightness and that an excessive amount of replacement and repair would be required to effect compliance. We urge that your tightness test standard for delivery vessels be the same as that in EPA's CTG, or a pressure change not greater than 3 inches w.c.

Paragraph (1) of this section in the wording "no person shall allow ... a delivery vessel ... to be filled ... unless" it is tested annually, etc., is interpreted as requiring the owner of a loading rack to police his customers' tank vehicles for compliance with tightness test and registration regulations. This is an unreasonable requirement. Many loading racks are of the "key-lock" type which are not attended by an employee of the owner and where the vehicle driver who does the loading must be held responsible. We urge that the wording be revised and clarified by addition of a section defining responsibilities, such as Rule 462(e) of the South Coast Air Quality Maintenance District (California), entitled "Responsibilities for Operation of Organic Liquid Loading Facilities." This is furnished as Attachment B.

In summary, we believe that the recommendations of the Western Oil and Gas Association, as supplemented by the comments above, for revision or further development of the proposed revisions to your rules have good practical and legal justification. Your consideration is requested.

# # #

Attachments A & B

"Testing" Section 340-22-107: One portion reads that "Applicants are encouraged to submit designs and test data approved by the California Air Resources Board, the Bay Area Air Pollution District, and the South Coast Air Quality Management District where VOC control equipment has been developed. Certification and Test Procedures are on file with the Department and are the certification and test procedures used by the California Resources Board as of August 1977."

We find this instruction to be confusing and believe that it is undesirable. It is actually somewhat misleading, in that California statutes provide that no gasoline vapor control system may be installed unless it has been certified by the State Air Resources Board. Such certification precludes approval by any local air pollution district, so that mention of approval by the Bay Area and South Coast districts is redundant. Also, there is a major question about the practicality of the certification-of-systems approach versus the actual spot-performance-test approach. There are indications of a number of problems with the California certification system. For example, at present, some local districts are suggesting that they may not issue permits to operate for some service station recovery systems even though these have been certified by the state board.

It is our observation that some of the most effective and practical systems yet demonstrated have not attained California certification because of the expense and long time period required, and they may thus not ever be available for use there.

It is recommended that your purpose would be better served by deleting reference to the certification and test procedures of any particular area and to simply say: "Applicants are encouraged to submit designs which are supported by thorough test data or which have been tested and approved for use by other federal or state agencies."

(e) Responsibilities for Operation of Organic Liquid Loading Facilities

- (1) The owner or operator of an organic liquid loading facility is responsible for complying with the provisions of paragraph (b) of the rule, and for maintaining the equipment at its facility in such condition that it can comply with the requirements of this rule if properly used. If employees of the owner or operator of the facility supervise or effect the transfer operation, the owner or operator of the facility shall be responsible for ensuring that the transfer operation complies with all requirements of this rule and that the transfer equipment is properly used.
- (2) The owner or operator, or driver/operator, of a tank truck, trailer, or railroad tank car, is responsible for complying with paragraphs (c) and (d) of this rule.
- (3) If the owner or operator, or driver/operator of a tank truck, trailer, or railroad tank car connects or disconnects the transfer equipment to such tank truck, trailer, or railroad tank car, then such owner or operator, or driver/operator is responsible for complying with subparagraph (b)(6) of this rule, and is responsible for operating the loading equipment at the facility in such a manner as to comply with the applicable provisions for such facility specified in paragraph (b) of this rule.
- (4) Where appropriate, the owner of operator of an organic liquid loading facility and the owner or operator, or driver/operator of a tank truck, trailer, or railroad tank car, may be separately or jointly in violation of this rule.



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EQC  
Hearing Section

MAY 21 1980

STATEMENT OF WAGNER MINING EQUIPMENT COMPANY  
CONCERNING THE ADOPTION BY THE OREGON DEPARTMENT  
OF ENVIRONMENTAL QUALITY OF A PROPOSED  
AMENDMENT TO THE STATE IMPLEMENTATION PLAN  
AND TO THE STATEWIDE AIR POLLUTION CONTROL  
REGULATIONS CONTAINED IN OAR 340-22-100 TO  
22-220 AND 340-20-155, TABLE A

AIR QUALITY CONTROL

RECEIVED  
MAY 21 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

I. BACKGROUND

Wagner Mining Equipment Company (Wagner), a wholly-owned subsidiary of PACCAR Inc, owns and operates a plant in Portland, Oregon, manufacturing mobile underground mining equipment. It is submitting this statement, with accompanying exhibits, as part of the administrative record in connection with the May 21, 1980 hearing before the Oregon Department of Environmental Quality (Department) at which the Department will take testimony concerning the adoption of the above captioned rule, designed to control emissions of volatile organic compounds (VOC's) from "Surface Coating of Miscellaneous Metal Parts and Products."

Wagner's plant is located in a semi-rural area on the periphery of the Portland AQMA. In 1979 the Portland area exceeded the national air quality standard for ozone on only one day.

The equipment manufactured by Wagner is painted under the "air dried coating method" as defined in proposed 340-22-102 (1). It is often transported by ocean carrier to other nations. Both here and abroad, it is subjected to extremes in environmental conditions, which has necessitated strict quality requirements of Wagner's surface coating. The coating must inhibit rust, resist acid and alkaline air, be durable and accept adhesive-backed non-skid strips. A descriptive brochure describing some of the equipment produced by Wagner is attached hereto.

II. WAGNER'S POSITION ON THE PROPOSED REGULATIONS

(a) Wagner strongly supports the Department's inclusion of the 4.0 lb./gallon limit proposed in 340-22-170(4) "Table 1" for "air dried" coating. Wagner has been advised by its paint suppliers that there is no commercially available paint in existence now, or in the near future, which could meet both the strict quality requirements of Wagner and a 3.5 lb./gallon VOC limit. At least, at 4.0 lbs./gallon Wagner may be able to comply by ex-





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perimenting with higher solid paint than it is currently using and the addition of in-line paint heaters. Water-borne paints would be wholly unacceptable. Space in the paint booth is quite limited and to use water-borne paint would necessitate lengthy periods of drying at temperatures high enough to damage items such as hydraulic hoses or plastic parts. Also, the assembly process at Wagner is such that it would be impossible to get the machine being built properly cleaned to the high degree required if one were to try to meet Wagner's performance standards with a water-borne paint.

(b) Wagner disagrees with the Department's decision to make the proposed regulation applicable to almost all industries in the Portland area. The only proposed exception is for industries emitting less than 15 lbs./day which amounts to only 3,660 lbs./year on a five day week basis. Wagner, a small emitter of only 12 to 15 tons/year, is being grouped in with large emitters simply because it is on the outer edge of the Portland AQMA. Wagner urges the Department to revise its proposed amendments to 340-22-170(2) (b) (1) to except:

"Sources whose emissions of volatile organic compounds are less than 20 tons/year, or ..."

(c) Wagner disagrees with the proposed compliance schedule contained in 340-22-107(3). Wagner does not challenge the ultimate compliance date but does feel that the dates chosen for submitting plans, placing purchase orders and beginning construction are unnecessarily early. As mentioned above, paint technology has not yet evolved to the point where complying paints will be commercially available in 1980. The Department is asking manufacturers to commit themselves to compliance plans using coatings which they can only speculate will be available. A more equitable approach would be to shift the date to submit plans to July 1, 1981; to place purchase orders to October 1, 1981 and to begin construction to July 2, 1982. Otherwise, the Department may well be inundated with amended plans if the paint manufacturers should fail to meet their hoped for goals.

(d) Wagner strongly supports the inclusion of 340-22-108 "Applicability of Alternative Control Systems". This "bubble" provision would allow manufacturers to reduce costs and energy consumption while working toward compliance by reducing VOC's from those portions of their operations where they could get the most reduction per dollar spent.

In conclusion, Wagner recognizes its responsibility to take reasonable steps to limit emissions of pollutants that may be responsible for violations of air quality standards. Once the technology has been developed to a point where controls are



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economically feasible or qualifying coatings are commercially available, Wagner will give every consideration to utilization.

Dated: May 21, 1980

Respectfully submitted,

WAGNER MINING EQUIPMENT COMPANY

By

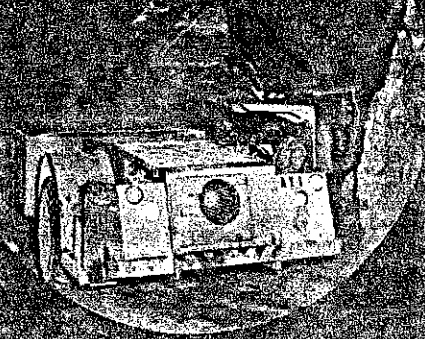
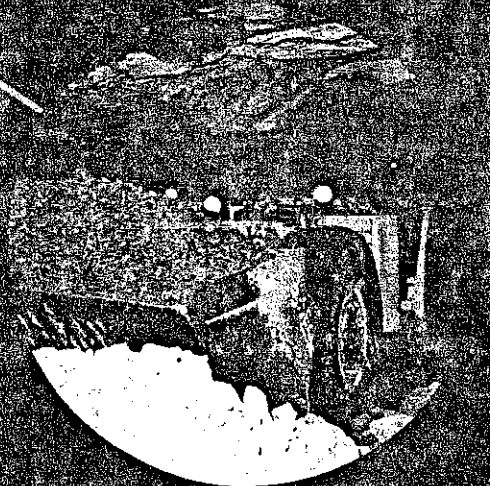
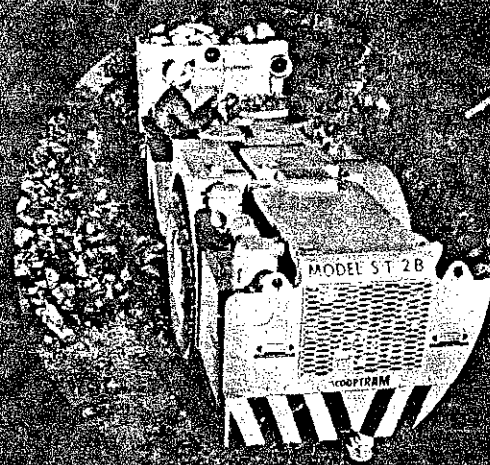
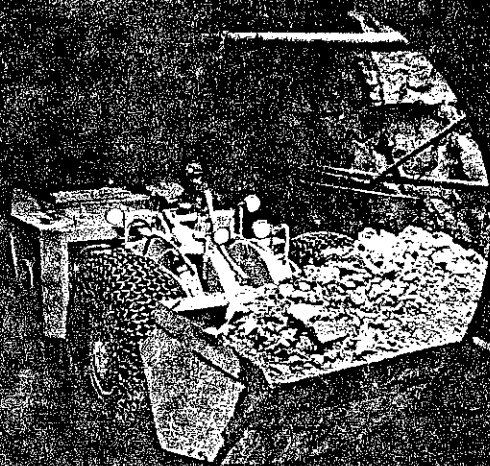
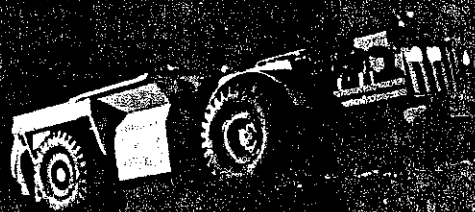
Jon C. Anderson

Manager, Manufacturing Services

**WAGNER  
MINING  
EQUIPMENT CO.**  
A DIVISION OF  
PACCAR

CATALOG 100

LINE OF PRODUCTS



*Worldwide*

*Sales & Service*

Testimony of Thomas C. Donaca,  
General Counsel, Associated Oregon Industries,  
on the  
Proposed Volatile Organic Compound Rules  
May 20, 1980

EQC  
Hearing Section

MAY 28 1980

(1) OAR 340-22-104. We are concerned about the application of this proposed amended rule. While we understand the potential "carrot" for new industry by being able to eliminate the need for offsets in attainment areas as well as the premonitoring requirements, we are unsure who will get the "stick." We have no totally reliable information on what existing industries may have 100 tons per year of VOC and be required to implement RACT. The DEQ has had inadequate staff and budget to evaluate all the potential sources in present attainment areas statewide. This matter need not be in the SIP now, and can be added at any time; we suggest that rather than implementing the rule at this time that the Director of Air Quality appoint a Task Force to examine the benefits and detriments of the proposed rule and make a recommendation within 120 days of the appointment of the Task Force members. A study of the type suggested is pertinent at this time in order to review the May 13, 1980 Federal Register, Requirements for Preparation, Adoption, and Submittal of SIP's; etc., page 31307 through 31312 together with the various EPA interpretive letters to various EPA regions.

At this time we recommend the reinstatement of Rule 340-22-104 as originally approved. However, the balance of the rule is redundant as it restates the definition of "LAER" found at 340-22-102 (22) of these proposed rules.

(2) OAR 340-22-106. We disagree with EPA's ruling that "other VOC pollution control devices" be eliminated from this rule. If weather conditions are such that ozone will not form then we suggest that operation of controls be left to the determination of the owner or operator. Apparently EPA does not recognize the practicalities of the situation and has no concern either for the economics involved or the energy requirements of pollution control devices, particularly when there is no environmental gain.

Under the circumstances we suggest that provision for case by case exemptions should not wait for the third round hearings. The Task Force suggested by us on the statewide VOC rule should be given the responsibility of suggesting the methodology for a practical case by case review rule for early submission in a SIP amendment to EPA.

(3) Rule 340-22-107. We are concerned about the ambiguity of subsection (1) relating to procedures of the California Air Resources Board and the designs of that body and several other local authorities. Are these procedures and designs to be officially adopted? If so, are the proposed rules sufficient to accomplish this? If you intend not to adopt design criteria, then we suggest the language is gratuitous and should be deleted.

We recognize that the compliance dates in subsection (2) and (3) are EPA mandated, but we suggest you may find the specified compliance dates difficult to meet, and you should be prepared to work with sources on extension of those dates. Of particular importance is the current recession which adds another dimension to the difficulty of compliance.

(4) Rule 340-22-170 (2)(b). We support the request of Wagner Mining Company for an increase in the minimum exemptions provided by this subsection. The minimum currently provided appears to be so low as to present significant enforcement problems in terms of determining subject sources. In addition, as automobile emissions are such a significant contributor it appears to us unrealistic to design such a tight limitation which does not appear to contribute to any significant decrease in ozone violations.

(5) Rule 340-22-108. We fail to understand the additional burden of subsection (2). If the alternative system meets the standards, why should the owner of such a system be faced with the "moving target" problem caused by subsection (2) and which sources meeting your other written standards are not faced with.

Regarding the May 21, 1980 letter to Rhea Kessler, Hearings Officer, from J.W. Kowalczyk which was introduced into the hearing record, we suggest it is an unusual procedure for the staff to enter substantive changes in the matter which is the subject of the hearing. This procedure may be deemed to avoid the public hearing process. The procedural question raised is whether the procedure for introducing these proposed changes meet the public notice and hearing requirements of the Administrative Procedures Act. If these matters are found out of conformity, but are adopted as rules in any event, we are concerned with their validity in the event of challenge. Some of the matters introduced should have the benefit of full public hearing, which is not the same as keeping the hearing record open.

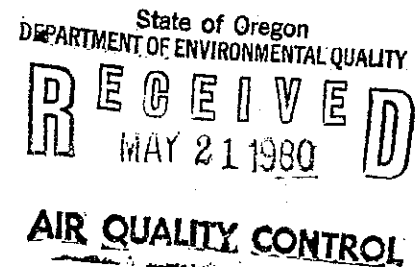
MAY 21 1980

**seton, johnson & odell, inc.**

consulting engineers

317 s.w. alder street  
portland, oregon 97204  
(503) 226-3921

May 21, 1980



William H. Young, Director  
Department of Environmental Quality  
P.O. Box 1760  
Portland, OR 97207

Re: Proposed Rules for Volatile Organic Compounds -  
Surface Coating

Dear Mr. Young:

Seton, Johnson and Odell, Inc. serves as environmental consultants to FMC Corporation and has been authorized by them to present this statement on their behalf.

FMC's Portland rail car manufacturing operations in Portland are subject to the proposed rules for surface coating of miscellaneous metal parts. The coatings are air dried and would be subject under the rules to an emission limitation of 4.0 lb/gallon.

On April 7, 1980, Seton, Johnson and Odell transmitted to Mr. Bosserman our engineering report "Analysis of Volatile Organic Compound Emission Regulations Applicable to Railroad Car Manufacturing", dated April 4, 1980 and prepared on behalf of FMC. This report documented the following conclusions:

1. Alternate coatings are presently available which would allow FMC to comply with a 4.0 lb/gal standard and achieve an emission reduction of 35 tons per year of VOC.
2. Low solvent coatings are not available for use in the railcar industry which would allow FMC to meet a 3.5 lb/gallon standard corresponding to the EPA Control Technology Guideline. Furthermore, the application of these coatings, if they were to become available, would likely require extensive building modification to the existing FMC plant. The use of add-on control devices such as carbon adsorbors or fume incinerators would be prohibitively expensive.

3. Specifications for coatings applied to railcars are rigidly controlled by customers, effectively placing FMC and other car manufacturers in the role of painting job shops with no control over what materials are sprayed. If FMC is prohibited from applying the coatings specified by customers, which currently are alkyd enamels containing 4.0 to 4.5 lb/gallon of solvents, it will be unable to bid for the work, which will go to competitive firms without VOC restrictions. Portland would thus lose a major employer.
4. In researching the Control Technology Guideline, the EPA did not address the unique problems of the railcar industry, and there is no record of any contact with the industry in the Control Technology Guideline document.

Based on these conclusions, and given the existence of FMC as a unique industry in Oregon, we have recommended a special industry category for railcar manufacturing within the VOC rules. We believe a standard of 4.0 lb/gallon is an appropriate figure.

Regardless of whether a special category is established, we support a general standard for air dried coatings of 4.0 lb/gallon, as proposed. The technology for meeting the CTG 3.5 lb/gallon level is simply not proven at this time. For the majority of Oregon manufacturers using air dried coatings only one technology is possible - high solids coatings - and these are still in the development stage. Water-borne coatings, even if developed, will be impractical for operations such as FMC which coat very large parts which must be stored out of doors immediately before and after painting. Water-borne coatings deteriorate rapidly if exposed to precipitation or are exposed to freezing temperatures before they are completely dried. Portland and Seattle have over 150 days each year of measurable precipitation, among the highest in the country.

I appreciate the opportunity to present this statement and will be pleased to work with DEQ staff in developing an industry-specific emission category for railcar manufacturing.

Yours very truly,



F. Glen Odell, P.E.  
Principal

FGO/kgh



**seton, johnson & odell, inc.**  
consulting engineers

317 s.w. alder street  
portland, oregon 97204  
(503) 226-3921

April 7, 1980

*P.D. 4/7/80*  
Mr. Peter B. Bosserman  
Senior Environmental Engineer  
Air Quality Division  
Dept. of Environmental Quality  
P.O. Box 1760  
Portland, OR 97207

Dear Pete:

In response to the proposed volatile organic compound regulations FMC retained Seton, Johnson & Odell, Inc. to prepare an engineering report. Enclosed are two copies of the report detailing FMC's position with respect to the new rules.

Results of the analysis indicate that FMC cannot meet a VOC limitation of 3.5 lb/gal for air-dried coatings (as suggested by EPA) through the use of RACT. Therefore a 4.0 lb/gal VOC limit is essential. It is requested that the Department give serious consideration to the establishment of a special rail car category to be inserted into Table 1 of the proposed regulations.

If you have any questions feel free to contact this office.

Very truly yours,

*Candice L. Hatch*

Candice L. Hatch

CLH/cyn

cc: Jerry Hayes - FMC

cc: Schultz-Coyne, EPA 4/7/80

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**RECEIVED**  
APR 7 1980

**AIR QUALITY CONTROL**

EQC  
Hearing Section

MAY 21 1980

ANALYSIS OF VOLATILE ORGANIC COMPOUND  
EMISSION REGULATIONS APPLICABLE TO  
RAILROAD CAR MANUFACTURING

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
APR 7 1980  
**AIR QUALITY CONTROL**

Prepared For:

FMC Corp.  
4700 N.W. Front Ave.  
Portland, Oregon

EQC  
Hearing Section

MAY 21 1980

Prepared By:

Seton, Johnson & Odell, Inc.  
317 S.W. Alder St.  
Portland, Oregon

April 4, 1980

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## 1. INTRODUCTION

This paper is a statement of FMC Corporation's position relative to the DEQ proposed volatile organic compound regulations. Elements of the DEQ rule differ from the EPA recommended rule and require technical justification before approval. At this stage in the rule-making process, FMC considers it appropriate to provide support information for the deviations as they apply to the rail car industry. Ultimately the goal of both FMC and DEQ is the adoption of a realistically achievable regulation.

## 2. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The existing FMC rail car manufacturing and painting facility is located in northwest Portland. In a standard production year 6,200 cars were painted producing 730 tons per year of volatile organics. The basic paint is a solvent base alkyd enamel composed of 40% solids by volume. Primer coatings have the highest solvent content of approximately 4.2 lb of VOC per gallon of coating.

DEQ is in the process of revising its VOC regulations. EPA's recommended presumptive norm for VOC emission limits is 3.5 lb/gal for air-dried surface coating of miscellaneous metal products. For the same category DEQ is proposing a 4.0 lb/gal in recognition of specific problems that Oregon industry would have meeting the EPA model rule.

Evaluation of the control options available to FMC (water-borne paints, higher solids (50-55%) paints, incineration and carbon adsorption) demonstrated that the 3.5 lb/gal limitation is not economically and/or technically feasible at this time. Water-borne and higher solids paints would require substantial building and process climate controls and would not meet customer paint specifications.

Carbon adsorption units have never been applied to coating application and flashoff areas in the rail car industry. Only two pilot plants are in operation in the automotive industry. Annual costs for both adsorption and incineration are prohibitive (\$125,000 to \$200,000/year). Incineration has the added disadvantage of requiring a constant fuel supply to combust the low concentration organics, therefore being energy intensive and wasteful. Both add-on control devices would necessitate building modifications to enclose the paint line areas.

FMC and Seton, Johnson and Odell recommend that the 4.0 lb/gal VOC limitation be adopted in a separate rail car category. Paints will shortly be available in the 44% solids range which will meet the regulation as well as satisfy customer paint specifications. By forcing use of these formulations, the 4.0 lb/gal standard will achieve about a 100 ton per year VOC emission reduction from existing plant emissions. A separate rail car category is appropriate in recognition of the unique problems associated with the industry, the importance of FMC to the Portland area and a recognition that the EPA recommended presumptive norm did not specifically consider the rail car industry when it was prepared.

### 3. PROCESS DESCRIPTION AND EMISSION INVENTORY

FMC Corporation operates Oregon's only railroad car manufacturing and painting facility at its plant on Front Avenue in northwest Portland. This manufacturing process is part of the Standard Industrial Classification Major Group 37 - Transportation Equipment. In 1979, the facility produced 6,200 railroad cars operating near full capacity all year. Employees operated on a two-plus shift per day schedule to accommodate the demanding production rate.

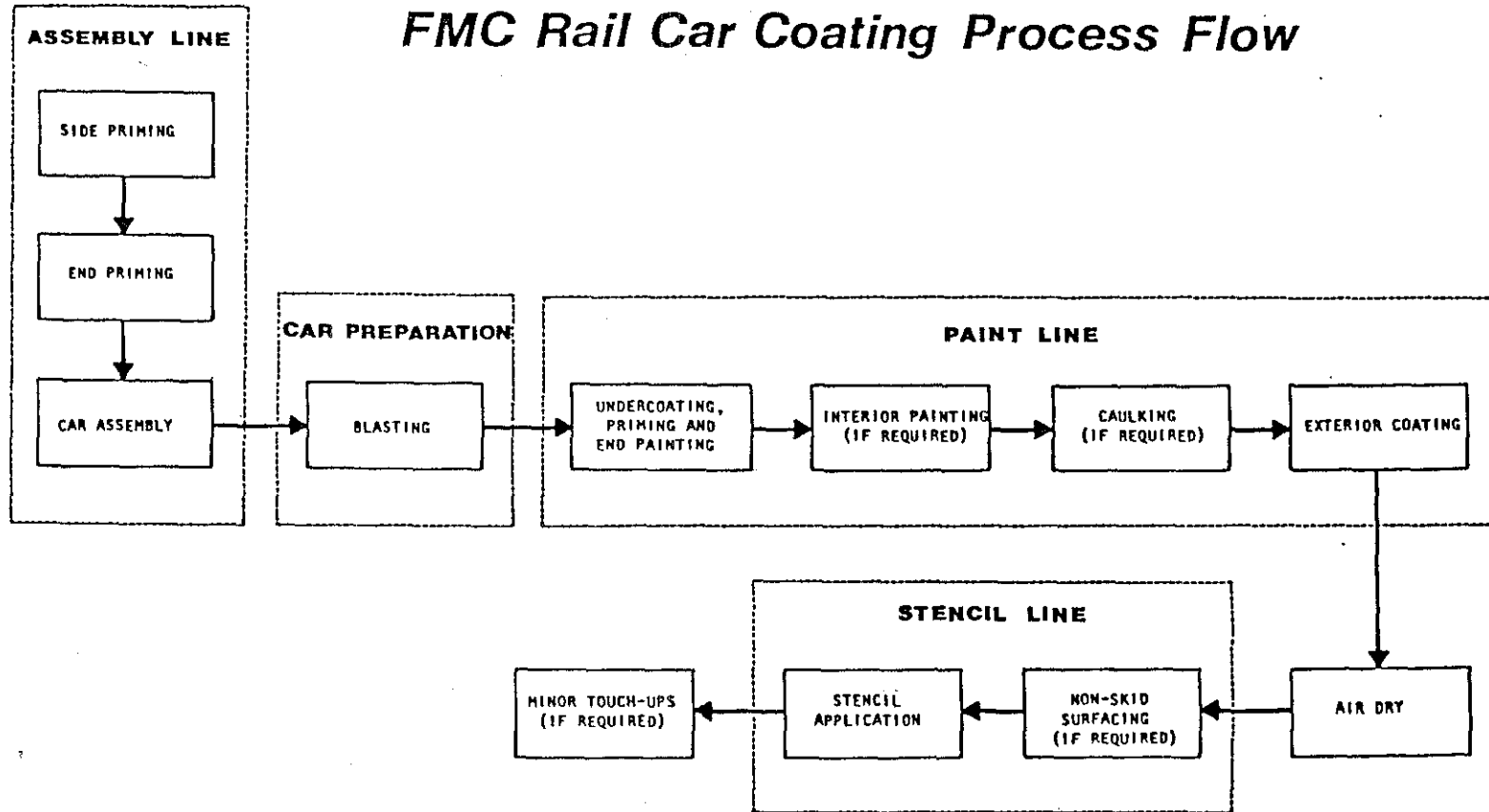
Painting and finishing process flow is depicted in Figure 1 and includes surface preparation, prime coating, interior and exterior topcoat finishing, caulking and stencil application. Building and production are designed for application of the air-dried coatings which are specified for rail cars.

FMC customers specify the surface coatings which can be applied according to rigid formulations and finish qualities. The basic paint is a solvent-base alkyd enamel composed of 40% solids by volume with lead dryers and pigments. One of the most volatile solvents employed in the solvent mixture is toluene.

Currently coatings are applied manually using airless, temperature controlled spray equipment. The coatings are then allowed to air dry with an approximate drying time of 3 hours per 3 mils thickness. There are no controls over temperature or humidity in the drying areas under normal operating procedures. Occasionally in the winter, heaters are used as a safeguard to aid drying a questionable batch of paint on exterior topcoats.

Figure 1

# FMC Rail Car Coating Process Flow





VOC emissions for the primer and topcoat applications in 1979 for 6,200 rail cars (of which the great majority were box cars) was approximately 730 tons. Average solvent content of paint is 4.0 pounds of VOC per gallon. Caulking and stenciling operations contribute minor quantities of VOC when compared to the other operations. Side post caulking compound contains about 25% xylol. Interior caulk is water-based and groove filling for floor panels is 10% solvent. Caulking produced about 6.4 tons of VOC in 1979. Stenciling adds another 7.5 tons of VOC to the total. Table 1 is a summary of emissions by operation. Generally these estimates represent a "worst case" emission condition when box cars are being painted. Other types of cars (ie: hopper cars) require less paint and therefore have lower VOC emissions.

The only existing VOC emission control system is a carbon adsorption unit mounted on the exterior paint heaters. Infrequent winter usage and system inefficiencies result in only minor solvent recovery.

TABLE 1  
RAILROAD CAR PAINTING VOC EMISSIONS  
(6200 Railroad Cars)

Operation	Coating Usage (gal/car)	Solvent Content (lbs/gal)	VOC Emissions (tons/year)
Primer	13.1	4.2	171
Exterior topcoat	14.0	4.05	175
Underframe	14.1	4.05	177
Interior topcoat	11.5	4.05	144
Non-skid surface	5.6	2.8	49
Stencil	0.6	4.05	8
Caulking	<u>1.1</u>	<u>1.88</u>	<u>6</u>
	60.0 Total	3.98 Average	730 Total

#### 4. REGULATORY REQUIREMENTS & PROPOSALS

##### 4.1 EPA "Model Rule"

In the 1977 Clean Air amendments Congress instructed EPA to prepare guidance material to assist states in their efforts to develop ozone plans. EPA has prepared a series of guideline documents on control of emissions from non-transportation sources including fuel transfer and storage and operations using solvents. Each document describes techniques available for reducing VOC emissions from a category of sources and states recommended levels of control. The source category into which FMC falls is "Surface Coating of Miscellaneous Metal Parts and Products."

The series of documents are presented as a guide for defining reasonably available control technology (RACT) and are based on capabilities and problems general to the industry. Because the guidelines do not take into account the unique circumstances of each facility, in many cases appropriate controls may be more or less stringent. EPA has urged States to judge the feasibility of imposing the recommended controls on particular sources and adjust them accordingly.

In preparation of the guideline series, EPA did extensive investigations into problems and capabilities of individual sources and industries. Railroad car facilities were not specifically investigated; nor is there any record that the rail car manufacturing industry made any input to the EPA process which produced the Control Techniques Guideline and model rule.

The EPA suggested VOC rule for surface coating of miscellaneous metal parts and products applies to the following sources: farm machinery, small appliances, commercial machinery, industrial

machinery, fabricated metal products and Standard Industrial Classifications Major Groups 33, 34, 35, 36, 37, 38 and 39. The recommended VOC emission limitation for sources that utilize air or forced air drying is 3.5 pounds of VOC per gallon of coating, excluding water.

#### 4.2 Proposed DEQ Rule

The Department of Environmental Quality (DEQ) is in the process of revising its VOC rules to correct deficiencies in the first round of rules and to have round two rules adopted in order to meet EPA and Oregon's SIP requirements.

DEQ's proposed rule for control of VOC emissions from surface coating of Miscellaneous Products and Metal Parts is applicable to the same sources as defined in the EPA guideline. Air-dried coatings processes would have a 4.0 pounds of VOC per gallon of coating limitation. However, the forced air-dried process limitation would be the same as the EPA proposal of 3.5 pounds of VOC per gallon of coating, excluding water. The limitations are to be based on a 24-hour average during the months of April through October.

#### 4.3 Impact on FMC

The FMC rail car painting facility falls under the surface coating of miscellaneous products and metal parts category as a SIC 37 (Transportation Equipment) source. The requirements under the rule of 3.5 (EPA) or 4.0 (DEQ) pounds of VOC per gallon for air-dried coatings must be met. Methods of control available include process changes or add-on control devices.

## 5. CONTROL TECHNOLOGY

Options available to FMC for reducing VOC emissions include process and material changes and add-on control devices. EPA has presented general descriptions of control options in Control Techniques Guidelines, but specific applications to the railroad car industry were not investigated.

### 5.1 Process Changes

Process and material changes can be divided into two segments: new coatings technology and more efficient application methods. The new coatings being researched are high solids content, water-borne and powder coatings. Information from paint suppliers shows some high solids content paints (50 to 55% by volume) are available now. Problems that arise in consideration of high solids paints are longer drying times, contamination and paint qualities. Generally, the FMC building and process are not suited to these paints. Longer drying times require more storage, increase the chance of contamination and would slow production. The maximum solids content which would meet FMC customer rigid specifications is approximately 45%.

As can be seen in Table 2, a 44% solids paint would put FMC in compliance with the DEQ proposed regulation. Plant site VOC emissions would decrease by 99 tons per year from existing levels. In order to comply with the EPA model rule, a 51% solids primer coating must be employed. Corresponding plant site emission reductions would be 228 tons per year of VOC.

Water-borne coatings have critical humidity and temperature controls and longer drying times. With the temperature and humidity variations in the Portland area, significant process and building

TABLE 2

RULE IMPACTS ON FMC VOC EMISSIONS  
(6200 Railroad Cars Painted Per Year)

Operation	Existing		DEQ Rule		EPA Rule	
	Coating Usage (gal/car)	VOC Emissions (tons/yr)	Coating Usage (gal/car)	VOC Emissions (tons/yr)	Coating Usage (gal/car)	VOC Emissions (tons/yr)
Primer	13.1	171	11.9	148	9.5	103
Exterior Topcoat	14.0	175	12.7	149	11.0	119
Under Frame	14.1	177	12.8	150	11.1	120
Interior Topcoat	11.5	144	10.5	123	9.1	99
Non-skid Surface	5.6	49	5.6	49	5.6	49
Stencil	0.6	8	0.5	6	0.5	6
Caulking	1.1	6	1.1	6	1.1	6
Total	60.0	730	55.1	631	47.9	502
Notes	4.2 lb VOC/gal primer 4.05 lb VOC/gal topcoat 40% solids by volume		4.0 lb VOC/gal primer 3.78 lb VOC/gal topcoat 44% solids		51% solids in primer 48.5% solids in topcoat 3.5 lb VOC/gal coating	

modifications would be necessary. Air drying of water-borne coatings would not be practical because installation of ovens and dehumidifiers would be required. The only facility that uses air-dried water-borne coatings on rail cars is a rebuilding and re-painting plant located in Tuscon, Arizona. On the average Tuscon is much less humid and warmer than Portland. Production at the Tuscon plant is substantially smaller than in the FMC facility.

Powder coatings would require high temperature oven curing and building modification, and should not be considered even remotely feasible for rail car applications.

More efficient coating application methods may reduce VOC emissions by reducing the total paint usage for a given process. Changes in application methods above would not be sufficient to meet the emission limitation per gallon of coating, but could be applied as a plant site alternative emission control. One coating method is airless, heated electrostatic application. Higher solids paints (50-55%) could be used. This method require different painting techniques and painter training. Pre-painting operations must be more thorough by the use of phosphate washes or acid rinses. Pumping breakdowns are more common with the higher viscosity coatings.

## 5.2 Add-on Control Devices

### Incineration

Incinerators are the most universally applicable control systems for VOC. The process of control is oxidation of organic emissions to carbon dioxide and water vapor. There are noncatalytic and catalytic incinerators.

Noncatalytic incinerators are also referred to as thermal or direct flame incinerators. Temperature and residence time are the important parameters in effective design. High temperatures in the range of 1100 to 1500°F are necessary to achieve 85 to 90 percent oxidation efficiencies.

Natural gas, LPG, distillate oil and residual oil are employed to fuel incinerators. Natural gas and LPG are preferred because of lower maintenance costs. In an attempt to reduce energy consumption, heat recovery is recommended. The hot cleaned gases exiting the incinerator can be used to preheat the input gases. However, noncatalytic incinerators always require some fuel to initiate combustion, especially at low concentrations of organics. It should be noted that heat recovery reduces operating expenses for fuel at the expense of increased capital costs.

Catalytic incineration speeds up the rate of chemical reaction at a given temperature. Therefore, some fuel savings is possible because lower oxidation temperatures are required. Problems occur when using catalysts because certain contaminants chemically react or alloy with catalysts and cause deactivation. One of these contaminants common in FMC coatings is lead.

Methods for estimating costs of VOC control are presented in the EPA Control Techniques Guideline documents. As an example, the cost to control FMC's undercoating (paint pit) area was evaluated. Assuming a 23,000 scfm air flow rate and 225 ppm inlet concentration, the annualized cost of a direct flame incinerator with primary heat recovery approaches \$204,000 per year. Capital investment is approximately \$340,000.



## Carbon Adsorption

Carbon adsorption separates organic vapors from the gas stream and concentrates them to a more manageable form. Carbon adsorption is technically feasible for most organic emissions but costs and difficulties vary with the specific industry. In guideline document preparation, EPA did not find any facilities that coat miscellaneous metal parts or products with carbon adsorption controls in the application or flushoff areas. There are only two known pilot plants for control of paint booth emissions in automotive surface coating.

The size of a carbon adsorption unit is dependent on exhaust flow rates, organic concentrations and the desorption period. Design parameters vary with each application because of the variety of coatings. Several problem areas must be addressed in control system design. Particulates can coat the carbon or plug the voids causing decreased adsorbitivity. Gas precleaning may be necessary to avoid the particulate problem.

Temperature and humidity must be regulated. Humidity range must be between 20 and 50 percent for optimum efficiency. Reuse of the collected solvent is often not feasible, especially if more than one solvent is used in the coatings.

Control of FMC's paint pit area would require a capital investment on the order of \$640,000 for carbon adsorption with no solvent recovery. Annualized costs, including operating and capital charges, approach \$125,000 per year.

In general, carbon adsorption units have higher capital investments but lower operational costs than direct flame incinerators. For low organic concentrations (around 100 ppm), carbon adsorption is the more economical. However, design constraints and

application technology may make the incinerator more feasible for coating application and flashoff areas.

Assuming a 90% control efficiency for both add-on devices, FMC paint pit VOC emissions could be reduced by 206 tons per year (159 tons/yr from undercoating and 47 tons/yr from end priming).

### 5.3 Potential New Facility

FMC is considering a redesign and replacement of the existing rail car painting facility. Evaluation of economic indicators has not been completed by FMC and commitment to the project has not been finalized. Should the new facility be constructed, it would have the same production as the existing process only with expansion capability.

FMC also is aware that it must keep pace with regulatory requirements and would incorporate as much flexibility as possible into the new design to accommodate future technology advances in anticipation of OSHA and ambient standards. Such design features may include temperature and humidity controls, drying ovens and structural details allowing work station reorganization.

## 6. RESPONSES TO PROPOSED REGULATIONS

### 6.1 Technical Approach

The approach FMC would take in meeting a 4.0 lb of VOC/gal emission limitation would be to change to higher solids (44%) coatings. The important factors in this regulation are that it is achievable, plant site VOC emissions would decrease by almost 100 tons per year, and that FMC could conform to paint specifications and remain competitive in the national market. Difficulties encountered in the conversion involve adjustments for any variations in paint properties and application techniques, and slightly higher costs for paint and equipment maintenance.

Options available to FMC in terms of complying with a 3.5 lb/gal of VOC regulation include employment of higher solids or water-borne paints, or the addition of incineration or carbon adsorption units. Paint technology has not advanced sufficiently to make water-borne paints acceptable to the rail car industry. Incineration is extremely expensive and energy intensive. In this day of energy conservation, this control method is not practical. More research is necessary before carbon adsorption can be applied to coating application and flashoff areas. Carbon adsorption has been used on ovens, but the FMC paints are air-dried.

The more productive solution is to adapt the building, process, equipment and operation to higher solids (50-55%) paints. Higher solids paints require different application methods and equipment. Painters would have to be retrained to develop new painting techniques. Airless, temperature controlled electrostatic application must be developed and tested for use on rail cars. Pre-cleaning operations would be more stringent with cars requiring chemical rinses before painting to avoid finish contamination. Essentially, an entire new facility must be designed and constructed.

A six-month period for higher solids paint and electrostatic application testing would be necessary. In an effort to keep up with advancing technology, FMC has already planned such testing for the second half of 1980. Facility design and construction may take up to four years. In this effort to meet the EPA model rule, millions of dollars would be spent making control economically infeasible.

There are major problems associated with all of the above VOC control options, giving a clear indication that a 3.5 lb of VOC per gallon of paint emission limitation for rail car manufacturers is not attainable under RACT.

## 6.2 Alternative Proposal

To better address problems associated with the industry, FMC suggests establishing a separate rail car category in the DEQ proposed regulations, with a 4.0 lb of VOC per gallon of coating limitation. A separate category would represent FMC in its unique position as Oregon's only rail car manufacturer. FMC is also the largest metals surface coating VOC source within the Portland-Interstate AQMA.

Rail car manufacturing is a national industry. Competition in the national market is structured with rigid coating specifications required by customers. In communications with other manufacturers it was found that most rail car coatings are less than 45% solids. A separate category would better recognize the national elements of the industry.

Information employed in preparation of DEQ's proposed regulation is contained in EPA's Control Techniques Guidelines (CTG). Each CTG contains recommendations of what EPA calls the "presumptive norm" for RACT. The presumptive norm is based on EPA's evaluation of the capabilities and problems general to the industry. EPA did

not investigate the rail car industry in preparing the CTG and, therefore, the "presumptive norm" does not specifically consider rail car manufacturing. FMC's process and controls are above or equal to standard practices on the national level, as was evidenced in a tour of several machinery coating facilities across the country.

The tour consisted of visits to Caterpillar Tractor, Ortner Freight Car, John Deere & Co., Trinity Industries, Quick Car and Richmond Tank Car plants. Most of the coatings were alkyd enamels in the 45% solids range. Caterpillar was testing water-borne primers but switched back to solvents at one facility because of quality control problems. The air-dried coatings plants used no add-on control devices. One plant did not even operate paint booths.

In summary, the main reasons for recommending a separate rail car category in the proposed VOC rules are that:

- . FMC is unique in Oregon.
- . FMC is the largest metals surface coating source in the PIAQMA.
- . Rail car manufacturing is a national industry with the associated constraints.
- . The "presumptive norm" is only a recommendation and did not consider the rail car industry.

## 7. RECOMMENDATIONS

FMC would like to make two recommendations regarding the VOC regulations proposed by DEQ. The first suggestion is that a separate category for rail car coating be included in the rule. Specifically this would require modification of the fee schedule (Table A) to include Source 72 - Rail Car Coating with appropriate fees and the emission limitation table (Table 1).

The second recommendation is to adopt a 4.0 lb per gallon VOC emission limit in the category applicable to rail car coating. This limitation is achievable through the use of a 44% solids paint and some operational modifications. VOC emissions from the existing FMC facility would be reduced by approximately 100 tons per year by the use of this reasonably available control plan.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RECEIVED  
MAY 21 1980  
AIR QUALITY CONTROL



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Hearing Section

MAY 21 1980

FREIGHTLINER CORPORATION

4747 N. CHANNEL AVE.  
P.O. BOX 3849  
PORTLAND, OREGON 97208  
503/283-8000

May 14, 1980

William Young, Director  
Department of Environmental Quality  
522 S. W. 5th Avenue  
P. O. Box 1760  
Portland, Oregon 97207

Dear Mr. Young:

Freightliner Corporation has reviewed the proposed rules for volatile organic compound emissions from surface coating. We do not wish to request any changes in the present language of the proposal. We do, however, wish to offer strong support to the following two specific sections of the rule, which are essential to our continuing ability to operate competitively in Portland.

1. OAR 340-22-170 (2) (a), the exception for customized topcoating of automobiles and trucks of production less than 35 vehicles per day;
2. OAR 340-22-108, alternative control systems.

Each of these is discussed below with respect to our Portland Truck Manufacturing Plant.

Freightliner manufactures customized Class 8 diesel trucks, which are defined as having a gross axle weight of at least 33,000 pounds, in a variety of different vehicles that are subsumed under the heading "Class 8 truck"; for example, vehicles used for cross-country hauling, for transporting heavy equipment, for hauling dirt or rocks, for logging, for mining applications and for transportation of oil field equipment. The type of customizing in which Freightliner excels, and one prime reason buyers purchase from Freightliner rather than from other manufacturers of Class 8 trucks, relates to the exterior appearance of the Freightliner truck--specifically, to the variety and quality of the paint job. Most of the demand for Freightliner trucks comes from the operators of small fleets of trucks and from independent truckers, for whom a truck is a major asset which reflects the trucker's personality and is viewed as his home. Because the average price of a Freightliner truck is approximately \$60,000, it is not surprising that buyers of such trucks take tremendous pride in them and insist that the exterior appearance be outstanding.

Freightliner anticipates that it will be able to comply with emission limitations set forth in the proposed rules with respect to prime coating of cabs and small miscellaneous metal truck

parts with the use of water-borne primers. If, with respect to the topcoating of its cabs, chassis and truck tire rims, Freightliner were forced to comply with emission limitations such as those set forth in the proposed rules, the market acceptance of Freightliner's trucks would be severely limited. There are five characteristics of a paint job that are critical to Freightliner's customers: (i) availability of a large variety of colors and paint patterns, (ii) good color matching characteristics, (iii) high luster, (iv) color and gloss retention, and (v) ability to withstand extreme environmental conditions (such as heat, abrasion, corrosion, contact with chemicals and oxidation). The only topcoatings available that meet each of these are thermosetting acrylic and polyurethane enamels. The importance of all of these characteristics becomes eminently clear when one considers that a typical Freightliner truck will travel more than one million miles during its lifetime of approximately ten years and requires a paint job that will remain in excellent condition over this period despite the harsh environmental conditions to which it will necessarily be exposed. Further, one of the important selling points of a Freightliner truck is its resale value, which, of course, is dependent in large part upon having an exterior appearance that remains outstanding over time.

Although each of the above characteristics is crucial to satisfying Freightliner's customers, having a wide selection of paint colors and paint designs for its trucks has been a major factor in our success in the Class 8 truck market. This demand for a large variety of design and color selections has been continually increasing with many customers demanding five and sometimes as many as eight colors per truck. During 1979 approximately 54% of the trucks produced were of two or more colors and the average for these was about 3.25 colors each. Some 12,000 different colors are available in the present paints and the only practical way to meet this requirement is to custom color mix in our plant.

It is absolutely essential that Freightliner's topcoating operations be exempted from VOC control because there are no feasible alternatives presently available or foreseen in the near future. A waterborne topcoat would not be satisfactory for painting the truck cabs for several reasons. First, in order to obtain the required luster, durability and gloss retention, waterborne paint must be cured by being baked in an oven for thirty to forty minutes at temperatures of up to approximately 350 degrees Fahrenheit. It would not be possible to properly cure a waterborne paint on a truck cab because such high temperatures would distort the fiberglass parts. Second, waterborne paints are available in only a very limited number of colors, as opposed to the 12,000 colors in which the thermosetting acrylic enamel is available. Third, in order to apply a waterborne topcoat on a truck cab, it would first be necessary to air condition and "climate control" the make-up air in the Portland plant's spray booths. The capital and energy costs involved in procuring, installing and operating the necessary equipment to do this would be prohibitive. Higher solids coatings would not be satisfactory because those currently



Mr. William Young  
May 14, 1980  
Page 3


available do not meet the emission limitations set forth in the proposed amendment. To the extent that higher solids coatings that meet such limitations might be available by December 31, 1982, there is no expectation that they would be available in more than a limited number of colors, certainly not in a sufficient number to meet the demands of Freightliner's customers.

Freightliner processes that will be required to meet Table I emission limitations are priming of cabs and miscellaneous small parts. At the present time we are reasonably sure of meeting this requirement by using a material in development by our paint vendor. However, we believe it is essential to have the flexibility afforded by the language of OAR-340-22-108 to allow us to develop the most effective response to the regulation should these developments not prove successful.

In conclusion, Freightliner recognizes its responsibility to take all reasonable steps to limit emissions of pollutants that contribute to lowering the air quality. It will employ all technological improvements as they become available in fulfilling this responsibility. When Freightliner is able to meet the VOC content limit as set forth in the rule, it will offer no objection to elimination of the exemption.

Very truly yours,

FREIGHTLINER CORPORATION

  
J. F. O'Connell, Manager  
General Truck Manufacturing

JFO:js

**seton, johnson & odell, inc.**

consulting engineers

317 s.w. alder street  
portland, oregon 97204  
(503) 226-3921

EQC  
Hearing Section

MAY 27 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 28 1980

**AIR QUALITY CONTROL**

May 22, 1980

Rhea Kessler, Hearings Officer  
Dept. of Environmental Quality  
P.O. Box 1760  
Portland, OR 97207

Dear Ms. Kessler:

As requested by Mr. Bosserman, I am submitting in writing certain comments made orally at the May 20, 1980 hearing on VOC rules amendments. I request that this letter be entered into the hearing record. It covers three subjects:

- 1) The statewide RACT requirements
- 2) Compliance schedules
- 3) Data in support of statements in my May 20 letter supporting a 4.0 lb/gallon standard for air dried coatings.

Statewide RACT Requirement

I recommend this be deleted. Statewide RACT regulations is not required by the Clean Air Act or any rule of the EPA, and the need for it has not been demonstrated. Furthermore, the justification cited in the April 18 staff report is likely to be invalidated by EPA policy changes as a result of the Alabama Power decision. There may be no preconstruction monitoring of offset review of rural VOC sources in an attainment area. Even if this were the case, however, we disagree with the DEQ staff conclusion that a statewide RACT requirement is preferable to the case by case review. It is inappropriate to visit upon Coos Bay the sins of Portland and Medford.

Aside from EPA procedures, the only other conceivable justification for the statewide rule would be to prevent future ozone problems in areas now in attainment. This might be appropriate if it were not for the predominance

Rhea Kessler  
May 22, 1980  
Page -2-

of motor vehicles in the ozone picture in all nonattainment areas and the fact that auto emissions are constantly being reduced. It is highly unlikely that any area presently in attainment with ozone standards will go out of attainment.

DEQ staff has sufficient work to do now and I don't believe that you need to bite off the additional problems which enforcing the statewide rule would create...all with dubious benefit to air quality. I recommend that the proposed statewide RACT provision be deleted at the present time. It can be installed at a future date when the air quality benefit of it has been demonstrated.

#### Compliance Schedules

I recommend that DEQ extend the date, since most firms will just be guessing in October as to what technology will be available. I have no alternative but to recommend to my clients that they make their best guess what they'd like to do, submit it, sit back and wait for a year or so to see what technology comes forth and then submit amendments as appropriate. It would be far more orderly to provide a more realistic deadline for surface coating compliance schedules, such as July 1, 1981.

#### Air Dried Coatings

As indicated in my May 20 letter on behalf of FMC, among the serious problems presented by water-borne coatings as a potential control technique is the effect of precipitation. This is particularly troublesome for railcars and other large products which require outdoor storage before and after painting. Table I presents annual precipitation data for several cities around the United States, based on 30-year averages published by the National Oceanic and Atmospheric Administration. Table 2 shows the monthly distribution of precipitation for Portland, Salem, Medford and Seattle. This data demonstrates the year-round impracticality of water-borne air dried coatings for large products subject to outdoor weather conditions.

Rhea Kessler  
May 22, 1980  
Page -3-

I trust this information will be useful in developing your recommendations to the EQC on the final form of the rule.

Yours very truly,

*F. Glen Odell (A.C.)*  
F. Glen Odell, P.E.  
Principal

FGO/ds

Attachments

cc: Peter B. Bosserman

TABLE I

Representative 30-Year Mean Number of Days Annually  
With Precipitation .01 Inch or More

<u>City</u>	<u>Number of Days</u>	<u>Total Precipitation, Inches</u>
Seattle, WA	151	36
Portland, OR	153	38
Salem, OR	150	41
Medford, OR	102	21
Pendleton, OR	100	12
San Francisco, CA	62	20
Los Angeles, CA	34	14
Bismarck, ND	95	16
Chicago, IL	123	34
Kansas City, MO	107	37
Houston, TX	107	48
Boston, MA	128	42
Atlanta, GA	115	48

TABLE 2

## Monthly Rainfall Days For Northwest Cities

<u>Month</u>	<u>Portland</u>	<u>Salem</u>	<u>Medford</u>	<u>Seattle</u>
January	19	19	14	20
February	16	17	11	15
March	17	17	12	17
April	14	14	9	14
May	11	11	8	10
June	9	8	5	9
July	3	3	1	5
August	5	4	2	6
September	7	7	4	9
October	13	13	8	10
November	18	18	12	18
December	19	20	15	20
Total	153	150	102	151

MAY 21 1980

COMMENTS ON OREGON VOLATILE ORGANIC COMPOUND  
RULES AND PERMIT FEES (340-20-22)

Dr. James E. Walther  
Supervisor of Air Programs  
Crown Zellerbach Corporation  
Camas, Washington

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 21 1980

AIR QUALITY CONTROL

Crown Zellerbach operates paper coating and flexible packaging printing operations in the Portland plant which are subject to these regulations. A carbon adsorption control system has been installed on the paper coating installation and is meeting the RACT limit required by the paper coating rule adopted in 1979. Our comments today are primarily directed at the new rules on VOC which affect the rotogravure and flexographic printing operations and on all new or modified sources of VOC throughout the state.

340-22-104

LAER requirements for all new or modified sources with increased emissions greater than 100 tons per year should be limited to non-attainment areas of the state. LAER does not require a consideration of cost or energy and should not be used in clean air areas.

PSD permit requirements are adequate to regulate VOC in attainment areas. Expansions are possible without obtaining a PSD permit if controls can be installed on existing sources to offset new emissions at the time of expansion. If existing sources are required to control VOC, any increase will require a PSD review. Expansions would have been possible without obtaining a PSD permit by installing controls on existing sources to offset new emissions at the time of expansion.

340-22-108 - Alternate Control Systems

Previously we have submitted comments at VOC hearings and urged the DEQ to add flexibility in new regulations to ease the economic burden of very expensive and energy intensive pollution controls. The alternate control rule proposed provides that flexibility. Crown Zellerbach will propose to control VOC emissions from the two paper coaters to offset the emissions from the printing operations. We urge the adoption of the rule as written.

It is our understanding that the plant wide emission rule may conflict with one section of the EPA policy on "Alternate Emission Reduction Options". However, the clear meaning of the EPA policy is to provide an option for an equivalent emission reduction at lower costs. The EPA policy provides for "further consideration of the issues in individual proceedings". (F. R. Vol. 44 p. 71780)  
40 CFR 52

In our case, additional control can be imposed on the paper coaters with a benefit of lower cost, lower energy, and a conservation of solvent resources. Toluene and ethanol emissions from the coaters, which are more photochemically reactive and toxic, can be recovered and reused in the process. The emission reduction beyond the RACT limit would off-set an alcohol mixture emission from the nine printing operations. The alcohol solvent mixture cannot be recovered at the present time. This solvent was formulated to meet past air pollution rules.

#### 340-22-210 Rotogravure and Flexographic Printing

Control equipment such as carbon adsorption can be used to reduce solvent emissions. Solvent recovery and reuse can minimize the high cost of control equipment. However, at the present time, the technology for recovery and reuse of the water soluble solvents has not been developed for the solvents used in flexographic or packaging rotogravure printing. EPA incorrectly concluded in the guidelines that water insoluble solvents could be substituted or more efficient incineration systems developed within a short time. Low solvent water borne inks have not been successfully used on packaging film products.

The control systems which can be used for the printing categories which use water soluble inks are very expensive. Capital costs can exceed 30% of the cost of a new press and are about \$2,000 per ton of uncontrolled VOC. Capital costs for control of the CZ printing sources could exceed \$0.5 million dollars annually with present control technology.

The final compliance date of July 1, 1982, which is six months sooner than the December 31, 1982 required for the paper coating source rule adopted last year. It would be difficult, if not impossible, to meet that date if controls were required on the printing operations.

Compliance test methods suggested by EPA are not adequate for carbon adsorption systems. Either analyses by gas chromatography or a material balance are required. The very complicated total non-methane carbon content method will not accurately determine the emission in total weight of VOC without a complete gas analysis to determine the molecular weight of a solvent mixture. Methods approved by the staff will be necessary for these sources.

↑  
NEG

#### 340-22-106

Other VOC control devices and methods should not be required in the winter months. Favored treatment of gas incinerators over carbon adsorption or low solvent technology is not justified in most cases. A carbon adsorption system, if economical, will be operated throughout the year. Natural gas usage in the process can equal the weight of VOC recovered.



Willamette Industries, Inc.

Duraflake Division

May 19, 1980



State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 21 1980

P.O. Box 428  
Albany, Oregon 97321  
503/928-3341

**AIR QUALITY CONTROL**

DEPARTMENT OF ENVIRONMENTAL QUALITY  
P.O. Box 1760  
Portland, Oregon 97207

Attn: Peter B. Bosserman *P.B.B.*

Gentlemen:

Per your instructions, enclosed are our comments on the revised regulations for the control of VOC. I will be prepared to orally submit this testimony at the May 21, 1980 public hearing if it is necessary.

Very truly yours,

*Tom Buglione*

Tom Buglione  
Production Manager

TB:jw  
enclosure: testimony

*CC: M.E. Fitzgerald, DEQ Staff*

TESTIMONY FOR PUBLIC HEARING ON MAY 21, 1980

ON REGULATIONS FOR THE CONTROL OF VOC

It is our understanding that the EPA prepared numerous control technique guidelines (CTG) to provide state agencies with information on reasonably available control technologies (RACT) for the control of volatile organic compounds (VOC). Where states have non-attainment areas of the ozone standard they are required to revise their State Implementation Plan (SIP) to further limit the amount of VOC's emitted in order to bring the ozone level back into attainment. The states then prepared their own RACT regulations based on the CTG documents. However, we feel Oregon went far beyond the intent of the EPA in their proposed regulation OAR 340-22-104, (1) "Notwithstanding the emission limitation in these rules, all new or modified stationary sources, statewide, with allowable VOC emission increases in excess of 90,720 kilograms (100 tons) per year, shall meet the lowest Achievable Emission Rate (LAER)."

We severely object to the language of this section. As previously mentioned, the intent of this entire DEQ proposal is to achieve attainment of ozone levels in areas of the state that are presently in non-attainment. The rule we quoted has no bearing on this objective. It will, however, place a tremendous burden on new or expanding industries because they will have to provide a control system that can not be defined. We defy anyone to define a LAER control system. What you use for a definition today may

not be appropriate next month, or next year, or in 1982. We feel that to subject new or expanding industries to that type of regulation will definitely dampen their desire to locate in our state or expand an existing operation. If the DEQ is in fact promoting no growth, then this proposal will be very effective.

Obviously, we need controlled growth. But we also need to accurately define what industry must do to attain controlled growth. Control strategies accepted for existing industries should also apply to any new or expanding industries in the state. Please adopt a standard that is equitable to all.

In addition to objecting to the Lowest Achievable Emission Rate (LAER) language in this proposal, we understand that the ozone limit the State of Oregon will recognize in 1992 is significantly different than the level industry is trying to conform to with this document. In fact, .08 ppm is 33% more restrictive than the .12 ppm recognized and accepted by the EPA. The RACT regulations are designed to maintain ozone levels at .12 ppm. It is not feasible to expect the same control strategies to attain a .08 ppm level in 1992. How can industry design equipment for a moving target? The .08 ppm target for 1992 should be removed from the SIP.

Submitted By

WILLAMETTE INDUSTRIES, INC.  
DURAFI LAKE DIVISION



Tom Buglione  
May 19, 1980

MEMBER OF



# PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY

PORTLAND, OREGON SECTION

May 21, 1980

Mr. Peter Bosserman  
Department of Environmental Quality  
522 S. W. 5th Avenue  
Portland, Oregon 97204

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
JUL 8 1980

**AIR QUALITY CONTROL**

Dear Peter,

On behalf of the Pacific Northwest Society for Coatings Technology, I would like to testify on the proposed changes to the VOC Administrative Rules being considered today.

The society opposes the current wording of the "excluding water" definition found in paragraph 340-22-170-(1). We feel it is unnecessarily restrictive in that it limits the incentive to convert to aqueous coatings systems as we have pointed out in our letter of February 23, 1980.

The society supports a 20 ton per year exemption level for VOC emissions rather than the unrealistic 15#/day proposal due to the economic impact of VOC control machinery, if the company uses existing coatings, or additional curing equipment if the company goes to water systems. Companies in the less than 20 ton level would suffer unnecessary and inequitable economic hardship.

We would also request it be stated in paragraph 340-22-106 that coatings formulations are VOC pollution control devices.

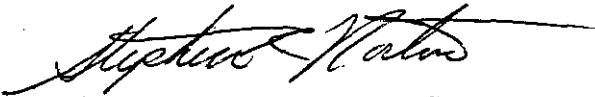
The society supports a four pound per gallon air dried formulation limit in table 1# page 31. Additional information to support our position has been difficult to secure. Additional comment will be made within the hearing extension period. We agree with Mr. Odell's comments on the four pound level given today based on our conversations with rail car coatings suppliers to FMC.

It should be noted that CARB formulas are not working in the better California climate and may indeed be producing more VOC than with higher VOC formulations resulting in a higher VOC emissions level over the life time of the respective coatings.

May 21, 1980  
Page Two

Due to the climate of Oregon, we the P.N.W.S.C.T., are contacting resin suppliers regarding the resin products they offer as to whether they are able to be formulated into a complying coating. We are awaiting the response to our inquiries. Hopefully, they will be supplied within the hearing extension period.

Respectfully submitted,



Stephen R. Norton, Chairman  
Environmental Committee  
Pacific Northwest Society for Coatings Technology

SRN/bs

cc: Walt Clyde  
Vic Felton

# MCCLOSKEY VARNISH CO.

OF THE NORTHWEST



4155 N. W. YEON AVE., PORTLAND, OREGON 97210

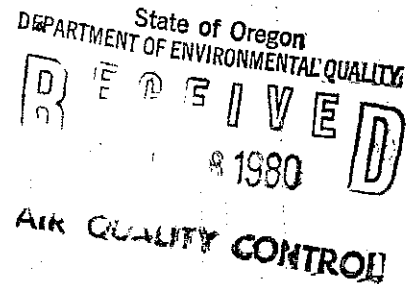
503-226-3751

*Manufacturers*

ALKYD RESINS • VARNISHES • EMULSIONS • SEALERS AND NATURAL WOOD FINISHES

JUNE 2, 1980

MR. STEPHEN NORTON, CHAIRMAN  
ENVIRONMENTAL CONTROL COMMITTEE  
PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY  
PORTLAND, OREGON 97208



DEAR MR. NORTON:

WE CAREFULLY HAVE REVIEWED THE LETTER FROM THE PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY ASKING FOR COMMENTS ON AVAILABLE RESIN SYSTEMS WHICH WILL MEET THE REQUIREMENTS OF THE PROPOSED OREGON ADMINISTRATIVE RULE 340-22-170. THESE SYSTEMS WOULD, OF COURSE, BE REQUIRED TO PERFORM ADEQUATELY THROUGHOUT THE ENTIRE CLIMATOLOGICAL YEAR.

SINCE THIS SPANS THE HOT, LOW HUMIDITY MONTHS OF SUMMER AND EARLY FALL TO THE COLD, HUMID CONDITIONS OF LATE FALL, WINTER, AND SPRING, WE HAVE CONCLUDED WE HAVE NO RESIN SYSTEMS WHICH WILL COMPLY.

SOME WATER SYSTEMS WHICH WE NOW HAVE AVAILABLE, COULD BE MADE TO PERFORM ADEQUATELY FOR PART OF THE YEAR USING ELEVATED TEMPERATURE FORCE DRYING TECHNIQUES. HOWEVER, THE ALMOST CERTAINTY OF RAIN IN PORTLAND, NOVEMBER THROUGH APRIL, COUPLED WITH THE LOW TEMPERATURES AND HIGH RELATIVE HUMIDITIES WOULD ELIMINATE THESE SYSTEMS FROM CONSIDERATION DURING THESE MONTHS. THESE COATINGS WOULD PROBABLY, TO PUT IT BLUNTLY, WASH OFF SOON AFTER BEING EXPOSED TO THE RAIN.

EXTENSIVE DEVELOPMENT WORK IS CURRENTLY UNDERWAY IN OUR LABORATORIES ON HIGH SOLIDS, WATER SOLUBLE AND LATEX SYSTEMS. TO DATE, HOWEVER, NONE OF THESE APPROACHES HAS YIELDED A SYSTEM COMPLETELY ADEQUATE TO MEET THE REQUIREMENTS OF 340-22-170.

THANK YOU FOR YOUR INTEREST IN THIS AREA AND WE WILL KEEP YOU ADVISED OF DEVELOPMENTS AS THEY OCCUR.

SINCERELY,

*John H. Daller*

JOHN H DALLER  
VICE-PRESIDENT  
TECHNICAL DIRECTOR  
MCCLOSKEY - NORTHWEST

JHD/D



**UNION CARBIDE CORPORATION**  
 PERFORMANCE CHEMICALS AND POLYMERS DIVISION  
 19206 Hawthorne Boulevard, Torrance, CA 90503  
 (213) 772-6435

**AIR QUALITY CONTROL**

State of Oregon  
 DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
 JUL 8 1980

May 28, 1980

Mr. Stephen R. Norton, Chairman  
 Environmental Control Committee  
 Pacific Northwest Society for Coatings Technology  
 Portland, Oregon 97208

Dear Mr. Norton:

This letter is in reference to your request for information concerning vehicles that are available to formulate water-based coatings that meet the new proposed regulation, Rule 340-22-170. In addition, these systems should perform well in the temperature and humidity conditions found in the Portland, Oregon, metropolitan area.

At this time we have no water-based vehicles with application properties suitable for the industrial coatings noted, with the exception of the coil coatings, furniture and appliance coatings when forced dried.

Moreover, the water-based vehicles now in use for miscellaneous metal products, when air dried, would not be recommended during the winter months due to the rain and temperature conditions found in the Portland area.

We recognize your interest in this area and will continue to advise you of any new developments that may occur in the future.

Cordially yours,

*W. P. Miller*

W. P. Miller  
 Technology Manager  
 Union Carbide Corporation  
 Coatings Materials Division

WPM/bd

**QUALITY EMULSION POLYMERS**



JUN 2 1980



May 23, 1980

Mr. Jerry McKnight  
Lilly Industrial Coatings, Inc.  
619 S.W. Wood Street  
Hillsboro, OR 97123

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
JUL 8 1980

AIR QUALITY CONTROL

Dear Jerry,

We have reviewed the letter from the Pacific Northwest Society for Coatings Technology requesting comments on the formulation limits as proposed by the State of Oregon's regulations on VOC, labelled Table I (Page 31). The request specifically designated "equivalent performance of a commercially available quick air dry finish" "of resin systems which would cure under the attached temperature and humidity conditions."

The limitations of ambient dry conditions that you have provided severely limit the number of systems that might dry or cure properly while meeting the proposed VOC limitations. We are not aware of any resin systems that would meet the proposed VOC limitations, air dry, and provide adequate properties for the categories of can coating, coil coating, fabric coating, vinyl coating, paper coating, auto and light duty truck coating, metal furniture coating, magnet wire coating, or large appliance coating. The one exception might be urethane systems for the repair coat for auto and light truck coatings.

Under the miscellaneous products and metal parts categories, a number of waterborne resins exist, and at least one urethane system exists which would meet the proposed VOC limitations. However, the low temperatures and high relative humidities you have provided in the attachments would preclude the practical use of waterborne resins. Low temperatures would retard dry rate and inhibit film formation in most instances. Similarly, high relative humidity (ca 85%) would extend dry-to-touch time beyond one hour for waterborne systems, and would also adversely affect film formation resulting in poor performance properties. We recommend to customers who experience low temperature, high humidity, or a combination of both conditions to use waterborne coatings where force drying is available. While universal drying conditions cannot be recommended, we suggest to customers that a 15 minute force dry at 140°F, following a maximum flash-off period of 10 minutes, will generally overcome adverse temperature and humidity conditions for systems designed for "air dry."



We believe these statements are a brief summary of the potential of currently available technology and hope the statements aid you in your assessment of the utility of low VOC, air-dry systems for coatings.

Very truly yours,



N. Roman  
Industrial Coatings  
Polymers, Resins & Monomers, N. A.

NR:jp  
(Doc. 3361I/216Z))

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY JUN 3 1980

RECEIVED  
JUL 8 1980

AIR QUALITY CONTROL



May 28, 1980

Mr. Jerry McKnight  
Lilly Industrial Coatings  
619 Southwest Wood  
Hillsboro, Oregon 97123

Dear Jerry:

As we discussed during our recent phone call, I am writing regarding our experience and recommendations covering basic formulating approaches for semi-transparent and clear stains for exterior application over bare wood.

As part of our normal program of investigating all possibilities for use of our acrylic emulsion resins, we have done extensive formulating and exterior exposure work with latex stains. We have found that with opaque stains, containing sufficient pigmentation to effectively mask the wood substrate from UV lights from sunshine, even when the coating is applied only one coat, that acrylic resins are excellent and their durability has proven to be outstanding.

However, when it comes to semi-transparent and clear stains, the situation is considerably different with latices. With these type stains, there is frequently inadequate UV screening to protect the substrate (bare wood) adequately. As the semi-transparent or clear stain weathers, the UV light from direct sunshine can get to the wood substrate and severe degradation of the substrate can result after a period of time. Because of this, as we have observed in numerous exposure series over the last ten years at our test fences, the semi-transparent and clear latex stains tend to fail by flaking. Even if this failure takes place after several years exposure, it is a problem from the standpoint that the resultant surface is really unsuitable for recoating. This is to say that the mode of failure is unacceptable. The use of UV absorbers has been investigated, and although these additives are helpful in forestalling failure, the mode of failure is still the same, and unacceptable.

We would think that the use of semi-transparent or clear stains over wood treated with Penta type materials would be even more problematic due to the possible plasticization of the topcoat by the wood treatment. This could lead to blocking problems, excessive dirt pick up, etc.

Mr. Jerry McKnight  
Lilly Industrial Coatings

-2-

May 28, 1980

Semi-transparent and clear stains based on conventional paint oils, such as linseed oil and soya oil have been in general use for many years and have been found acceptable. The mode of failure of these type stains is such that erosion of the paint film occurs as the oil vehicle absorbs UV radiation, resulting in gradual film degradation and chalking. This leads to the normal mode of failure and subsequent acceptability from a repaint standpoint.

Thus, we cannot give you at this time an acceptable recommendation for a water based system for exterior semi-transparent or clear stains that would be applied over bare wood. This appears to be one area where we must continue to rely on oil based systems.

I hope this information is helpful and if anything further is needed, please feel free to contact us at any time.

Sincerely,



Nick Maio  
Northwest Technical Representative  
Polymers, Resins and Monomers

NM:dms



# PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY

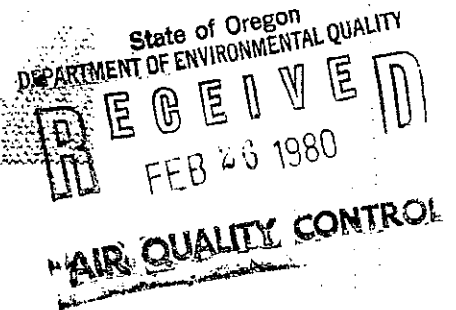
PORTLAND, OREGON SECTION

February 23, 1980

VOC  
Hearing Section

MAY 21 1980

Mr. Peter Bosserman  
State of Oregon  
Department of Environmental Quality  
522 S. W. 5th Avenue  
Portland, Oregon 97207



RE: V O C Draft Rule

Dear Mr. Bosserman,

We in the coatings industry certainly appreciated your frank discussion of the latest draft of the proposed VOC Regulations at our Feb. 19, 1980 Society meeting. Yesterday, our Environmental Committee met to review and comment on the February 15, 1980 draft of the VOC Regulations that you had passed out at our society meeting. Listed below are the resultant comments and proposals for inclusion in the proposed regulations.

We propose a clarification of the definition of "Control Device" used in paragraph 340-22-100-(2). We recommend that coatings formulation be recognized as a control device and be so stated in the definition section 340-22-102. Due to the climactic conditions of the State of Oregon, we feel it is necessary to exempt in these standards coatings from the limitation standards established in Table 1 during the period of November through March, without case by case approval by the DEQ. We cite the precedent established in the exemption for cutback asphalt 340-22-140.

We recommend changing 340-22-100-(h) to read, "Coating operations as defined in Table 1", as revised by our recommendations for Table 1.

It is our opinion that the definition of "source" in 340-22-102-(2) is unsatisfactory; therefore, we propose a distinction of point source from area source be made. We recommend "Source" as defined be changed to "point source".

We propose 340-22-102-(22) be changed to read, "'Coating line' means one or more apparatus or operations each of which may include but is not limited to a coating applicator, flash off area, and oven wherein a surface coating is applied, dried, and/or cured."

340-22-102-(25) "air dried coating" is recommended to be revised to read "'air dried coating' means coatings which are dried by the use of air at ambient temperature." A definition of "force air dried coating" should be added to the definitions. It should read "'force air dried coatings' means coatings which are dried by the use of forced warm air at temperatures up to 90 C (194 F)."

We propose another category of exemption under 340-22-106 to address coating operations. The proposed exemption should read "Sources are exempted from the general emission standards for VOC during the months of November through March." Please refer to our comments concerning 340-22-102.

The exact method of compliance determination should be included in detail within the proposed regulations to clarify 340-22-106-(3). This would enable the source to identify the acceptable methods by which they can determine compliance. Calculation methods and examples should be included in the certification and test procedure.

The compliance schedule listed in 340-22-106-(4) and (5) needs revision to current dates. We also feel the compliance schedule in 340-22-106-(5) is unclear as to its application to coatings formulation changes.

We feel the "applicability of alternative control systems" (bubble concept), 340-22-108, is unclear. It is our opinion that the "bubble concept" is vital to the viability of the industry given the current technology and conditions. The current wording is ambiguous and may be subject to misinterpretation. The bubble concept should be an alternative control system not requiring specific written approval.

We recommend the term "excluding water" be deleted from 340-22-170-(1). The exclusion of water removes the incentive to convert existing application lines to aqueous coatings. An example is attached as Enclosure 1. The water is an intergal part of the formulation by serving as one of the prime carriers for the coating.

Proposed below are the exempt categories we feel are necessary for inclusion in the exemptions found in 340-22-170-(2)-(a):

1. Wood furniture and wood cabinets.
2. Wooden doors, moldings, and window frames.
3. High temperature coatings (for service above 500 F)
4. Government specification coatings.
5. Lumber marking coatings.
6. Potable water tank coatings.

We recommend the point sources referred to in 340-22-170-(2)-(b)-(1) be exempted whose volume of VOC emitted is 20 tons or less per year. This would coincide with the permit fee schedule.

In reference to Table 1, Formulation Limitations, we recommend three areas be revised. First the Flatwood coating category should be divided into four subcategories, to include, simulated wood grain coatings, natural plywood coatings, Class 2 hardboard coatings, and other flatwood sheet coatings. This request is based on the OAQPS guideline series Vol. 7, "Factory Surface Coating of Flatwood Paneling." Our proposed limits would be 1.7#/gal for simulated wood grain coated panel, 3.2#/gal for natural plywood coating, 2.7#/gal for Class 2 hardboard coating, and 3.0#/gal for other flatwood sheet coating. Secondly, that the "air dired and forced air dried" category be divided into two categories consisting of "air dried" and "force air dried" with formulation limits of 4.0 and 3.5#/gal respectively. Thirdly, that the "extreme performance coating" limit be raised to 4.0#/gal.

We propose the compliance determination method 340-22-170-(5) be published as part of this regulation.

We also recommend the exemption and extention procedures be published within the body of the regulation to facilitate handling any currently unforseen problems.

Page Three  
February 23, 1980

The preceding recommendations and proposals were derived from a representative group of coatings formulators from Oregon's coatings manufacturing companies. We feel they are fair and reasonable requests.

If you have any questions or comments concerning our recommendations, please feel free to contact our committee.

Thank you for your attention in this matter.

Sincerely,



Stephen R. Norton, Chairman  
Environmental Committee

SRN/bn  
Enclosures

cc: J. Mitchell  
C. Schaedel  
W. Clyde  
R. Connor  
C. Bailey

ENCLOSURE 1

The formula for calculating the weight of VOC per gallon excluding water is:

$$\# \text{ VOC. / gallon less water} = \frac{\# \text{ VOC / gallon}}{1 - \frac{\text{volume \% water}}{100}}$$

Following is an example of a formula in which the volatile content is mainly water with a small amount of solvent:

0.35#	VOC	@ 7.0 #/gallon	=	0.05 gallons
0.5 #	non-volatile	@ 10.0 #/gallon	=	0.05 gallons
7.5 #	water	@ 8.34 #/gallon	=	0.9 gallons
<u>8.35#</u>	total wt.			<u>1.0</u> total vol.

$$\# \text{ VOC / gallon less water} = \frac{0.35}{1 - \frac{90}{100}} = \frac{0.35}{1 - 0.9} = \frac{0.35}{0.1} = 3.5 \# \text{ VOC}$$



Chemical Coatings/Resins

# Reliance Universal Inc.

12336 97309  
1660 Cross Street S.E., P.O. Box 12336, Salem, Oregon 97309 • Phone 503-585-2700

February 25, 1980

Hearing Section

MAY 21 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
FEB 25 1980

**AIR QUALITY CONTROL**

Mr. Peter B. Bosserman  
Senior Environmental Engineer  
Air Quality Division  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
State of Oregon  
525 SW 5th, 4th Floor  
Portland, Oregon 97207

Dear Peter:

This letter is written in response to your invitation to representatives of the coating industry to comment on the proposed draft of changes and additions to Oregon Administrative Rules Chapter 340 affecting volatile organic compounds, dated 2-12-80.

First, let me say that Reliance Universal Inc. supports the efforts of the Department of Environmental Quality to develop regulations which are intended to protect the safety and health of Oregon's population. We have devoted a great deal of our time and energy to developing water-borne coatings for the industry we serve, and we expect this commitment to continue.

The following recommendations are made to clarify the wording and content of the Standards, and to modify the limitations which apply to the coatings application industry. They follow roughly the order of the prepared draft. Many of the comments will also be included in a letter to you from a committee of coatings industry representatives.

1. 340-22-102, Definitions

- a. (25) "Air dried coatings" should mean only coatings which are dried in air at ambient temperatures. A separate definition should be written for "force dried coatings" which should mean coatings which are dried at elevated temperatures up to 90°C (194°F). The method should not be restricted to "forced warm air" since infra-red radiation is a common method of heating coated surfaces.
- b. "Flat wood sheet coating" should be written to either include or exclude coating of flat sheets other than wood, for example particle board, hardboard, paper or plastic laminates on wood or wood-derived substrates, etc.

*OUR GUARANTEE: "Since methods and conditions of application and use are beyond our control, all merchandise is sold without warranty of suitability or fitness for the customer's particular purpose and subject to the condition that our liability as to any product is in any event limited to the return of the purchase price.*

*"It is expressly understood that any technical advice furnished by us is given gratis and we assume no obligation or liability for the advice given or results obtained, all such advice being given and accepted at the customer's risk. Further, by mention of equipment or products we do not imply an unqualified recommendation as there are undoubtedly others of similar types on the market which may be equally or better suited for the purpose."*





Chemical Coatings/Resins

12336

97309

Page - 2

1660 Cross Street S.E., P.O. Box 22222, Salem, Oregon 97302 • Phone 503-585-2700

- c. "Control device" should be defined, and the definition should include formulation of the coatings. This definition is necessary to clarify the use of the phrase in 340-22-100 and 340-22-106.
  - d. Whether in this section or as an expansion of Table 1, "Miscellaneous products", "Air dried or force dried", and "Other coatings", should be fully defined so that applicators do not have to guess about whether and how they are regulated.
2. 340-22-106 (3) Compliance Determination. Certification and test procedures should be written in detail as part of this section. Reference to California compliance methods does not provide the regulated sources with information on how their compliance will be evaluated.
  3. 340-22-106 (4) and (5) I am sure you intend to revise the compliance schedule. However, the headings of the date columns ignore the possibility that compliance may be accomplished by reformulation, especially in the cases of coating and printing.
  4. 340-22-108. In your talk before the Society for Coatings Technology in Portland you indicated that this section covered the so-called "Bubble Concept" which is now supported by EPA. However, although the language may satisfy DEQ's legal requirements, it is not clear that a plant will be allowed to propose alternative methods for control of various sources within a plant, as long as the plant's total emissions do not exceed the limits for the entire facility.
  5. 340-22-170. The phrase "per volume of coating excluding water" is a needlessly artificial expression of the emission of volatile organic compounds. It gives an inaccurate representation of the actual pounds of vapor released into the atmosphere.

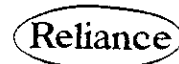
The final edition of Volume VII Factory Surface Coating of Flat Wood Paneling in EPA's OAQPS Guideline Series, Control of Volatile Organic Emissions from Stationary Sources discards this concept even though they had used it in previous editions.

The following example illustrates the fallacy in the calculation. Although this is an extreme example, it is nevertheless a logical one.

This is a formulation for a low solids coating in which the volatile material is mainly water with a small amount of solvent, possibly to promote compatibility or adjust evaporation rate:

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Chemical Coatings/Resins

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0.35# VOC	@ 7.0#/Gallon = 0.05 gallon
0.5 # non-volatile	@ 10.0#/Gallon= 0.05 gallon
<u>7.5 # water</u>	@ 8.34#/Gallon= <u>0.9</u> gallon
8.35#	1.0

The formula for calculating volatile organic compound per volume of coating excluding water is:

$$\text{VOC \#/gallon less water} = \frac{\text{VOC \#/gallon}}{1 - \frac{\text{volume \% water}}{100}}$$

For our example:

$$\text{VOC \#/gallon less water} = \frac{0.35}{1 - \frac{90}{100}} = \frac{0.35}{1-0.9} = \frac{.35}{0.1} = \underline{3.5\#}$$

This calculation obviously distorts the actual amount of solvent vapor emitted by a factor of ten.

It might be imagined that before reformulation to reduce the solvent content, the formula was:

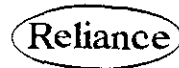
0.5 # non volatile	@ 10.0#/gallon = 0.05 gallon
<u>6.65# VOC</u>	@ 7.0#/gallon = <u>0.95</u> gallon
<u>7.35#</u>	<u>1.00</u>

The VOC content was 6.65#/gallon. Reformulation decreased this to 0.35#/gallon, a substantial reduction of 6.3# of VOC emitted in every gallon to approximately 5% of the original content. However, the VOC#/gallon less water calculation would falsely describe the reduction as only about 50%

6. Table 1. The emission standards for Flat Wood Sheet Coatings should be deleted from this table and shown in a separate table to conform with the EPA Guidelines cited above.
  - a. Flat wood sheet coatings should be divided into three categories: printed interior wall panels, natural finish hardwood panels, Class II hardboard paneling (see pages V and 2-8, 2-9).
  - b. Limitations should be expressed in kilograms of VOC per 100 sq. meters (or pounds of VOC per 1000 sq. feet) of coated surface, instead of grams per liter or pounds per gallon. Quoting the Guidelines, p. IV "The recommended emission limits are stated in terms of kg of VOC per 100 square meters of coated surface (lbs. per 1000 square feet) to

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"It is expressly understood that any technical advice furnished by us is given gratis and we assume no obligation or liability for the advice given or results obtained, all such advice being given and accepted at the customer's risk. Further, by mention of equipment or products we do not imply an unqualified recommendation as there are undoubtedly others of similar types on the market which may be equally or better suited for the purpose."



Chemical Coatings/Resins

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Page - 4

1660 Cross Street S.E., P.O. Box 12336 Salem, Oregon 97309 • Phone 503-585-2700

give operators necessary flexibility in adjusting the VOC content of the various coatings applied to a given panel. Practices vary such that it would be difficult to set a VOC limit for each type of coating. By balancing the VOC content and properties of the various coats, acceptable VOC reductions can be achieved without sacrificing product quality".

Please note that these limitations were derived from the usage of coatings with average VOC contents, stated in pounds VOC per gallon, not pounds of VOC per gallon less water. Please note also that the limitations in the DEQ proposed draft Table 1 for Flat Wood Sheet Coatings is a figure that is lower than EPA's figures for two of the three product categories. However, since DEQ's limitation is calculated on a # VOC/gallon less water basis, it is impossible to make a direct comparison with EPA's figures.

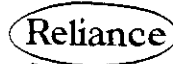
We would urge Oregon's DEQ not to penalize this state's flat sheet finishing industry by applying standards in Oregon which are different from those which EPA is recommending for other states in the OAQPS Guidelines.

7. Coating of Furniture, kitchen cabinet, store fixtures, shelving and mill-work should be exempted from these standards, except as it may be construed to be "flat wood sheet" finishing, i.e. they should not be included in any of the Miscellaneous categories. You have expressed the intention of the DEQ to conform to the EPA guidelines in formulating these standards. Since EPA has not yet issued guidelines for these products we urge you not to impose arbitrary limitations for these classes of operations which may turn out to be widely different from the eventual guidelines. Here again, we would not want to see Oregon's industries regulated more severely than their competitors in other states.
8. You indicated in your talk that the calculations for compliance would be applied to the total of all the coatings emitted by a source rather than to the individual products, and that they would be averaged over some period of time. These principles should either be described in detail elsewhere, or the asterisk at the bottom of Table 1 which now applies only to Inert Gas Process Paper Coating should be applied to all of the processes.
9. You indicated in your talk that you would view emissions of some solvents as constituting a greater environmental threat than others, e.g. toluene versus acetone. While we would not dispute this view, if this principal is to be followed, it should be explained in the Standards.

We recognize the complexity of writing standards which accomplish the intended purpose but which do not jeopardize Oregon's business more than necessary.

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Chemical Coatings/Resins

Page - 5

12336 97309  
1660 Cross Street S.E., P.O. Box 21971 Salem, Oregon 97308 • Phone 503-585-2700

And, we understand your desire to measure the drafts against the needs of the industry. You mentioned that one board manufacturer in the Medford area said that he could see no problems conforming with the proposed draft. We do not feel that his single opinion is a good statistical sample or that his process is representative of the flat wood coating industry in Oregon. Since the coating manufacturers are ultimately the people responsible for conformation to the Standards, their opinions should be given more weight than those of their customers. Indeed, I would expect that few coating applicators would venture an opinion about conformation without consulting their suppliers. For this reason I urge you to consider carefully the recommendations from the coatings industry as you complete these Administrative Rules.

Very truly yours,

J. M. Hatfield  
Technical Director

JMH/ds

cc: Paul Leary  
V. Jacquet  
Steve Norton, Society for Coatings Technology, Technical Committee  
c/o Tenneco Chemicals, Inc., 2140 NE 54th Ave., Portland, OR 97213

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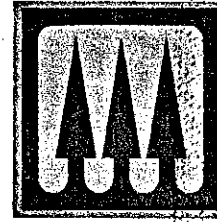
February 21, 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1011 MCKINLEY WEST POST OFFICE BOX 2768  
SEASIDE, OREGON 97138 (503) 342-1821

RECEIVED  
FEB 25 1980

FORREST PAINT CO.

AIR QUALITY CONTROL



MAY 21 1980

FOR  
Hearing Section

Peter B. Bosserman  
Senior Environmental Engineer  
Air Quality Division  
Dept. of Environmental Quality  
P.O. Box 1760  
Portland, Oregon 97207

Re: Proposed Draft of Changes and Additions to Oregon Administrative Rules Chapter 340 Affecting VOC.

Dear Mr. Bosserman;

I enjoyed your discussion last Tuesday night at the Pacific Northwest Society for Paint Technology. Although it may not have seemed so, I really appreciate your openness and cooperative spirit to arrive at a workable rule for limiting VOC in the Oregon Air Shed.

I am addressing my remarks in this letter to those areas of the coatings industry which I feel should be exempted from the proposed rules. I have in mind 2 basic types of coatings:

Type I:

There are some coatings containing VOC for which there are no available substitutes. These are coatings which present technology does not cover their manufacture in high solids, powder, or water soluble or dispersible systems; and coatings where no viable systems have been worked out to handle their production in compliance to this rule, such as, State and Federal Specifications. These coatings include:

- (1) High temperature coatings requiring continuous exposure to temperatures in excess of 150°F.
- (2) Coatings for the inside of water storage tanks.
- (3) Maintenance coatings used in highly corrosive environments.
- (4) Government specifications both State and Federal.
- (5) High Performance inorganic zinc primers.

Type II

These coatings are types for which there are reasonable substitutes in water soluble or reducible systems which would conform to the

proposed rule but because of the application conditions related to Oregon weather it would be impossible to dry the water in the coatings most of the time. As you know, the evaporation of water is related to the temperature and relative humidity of the air surrounding the coating.

There are many steel fabricators who prime and enamel steel parts who apply the coatings in open buildings. In order for them to dry coatings containing water it would be necessary for them to enclose the buildings and heat the air high enough to reduce the relative humidity to the point where the coatings would dry. To further complicate the problem the products to be coated range in size from small pieces to hugh structures, tanks or machines which could not possibly be introduced to any kind of baking procedure. Also because of the bulk of the products and the logistics of the handling procedures necessary for efficient coating procedures, these people use extremely rapid drying coatings. This speed of dry being difficult to achieve with water coatings under the very best of drying conditions.

The bulk of these fabricators emit from 2-12 tons of VOC per year. Some of the larger ones would emit up to 25 tons per year. These figures are based on their monthly purchases in gallons.

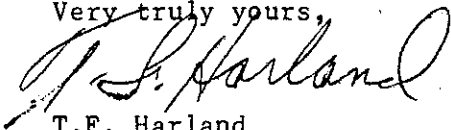
At this time I don't have any percise figures on capitol investment costs to convert these establishments to conroled temperature and humidity conditions to dry water coatings (if it were indeed possible to do it at all) but it would be substantial.

The energy requirements to heat and ventilate such facilities would also be very substantial, probably with considerable air polution involved in the energy production.

Many of these fabricators are located in the Portland air shed and a few in the Salem & Medford areas.

I would like to request that consideration be given to the exemption of these 2 types of products similar to the exemptions for cutback asphalt and or the exemptions for airplanes, automobile refinishing, custom coating of automobiles and trucks, and marine vessels and vessel parts painted in the open air.

Very truly yours,



T.F. Harland  
Vice President & Technical Director

**NORRIS PAINTS**

**NORRIS PAINT & VARNISH CO., INC.**

1675 COMMERCIAL STREET N.E. SALEM, OREGON 97308

POST OFFICE BOX 2023

TEL. (503) 504-2277

Hearing Section

May 20, 1980

MAY 21 1980

*P.D.*  
Mr. Peter Bosserman  
Department of Environmental Quality  
522 S. W. 5th Ave.  
P.O. Box 1760  
Portland, OR 97207

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 21 1980

AIR QUALITY CONTROL

Dear Mr. Bosserman,

I would like to address a comment to the Air Quality Model Rule Draft Document of March 6, 1980. This is in regards to calculating VOC emissions in 340-22-170, (1) directly from the coating formulation as received by the user rather than after the exclusion of water from the formula in the case of water - (based) coatings. This would make calculations easier for the consumer or user to understand and hence comply with.

It is going to be difficult enough to substitute water-based coatings in most every circumstance due to the state of the art now existing in the industry. Manufacturers of coatings are willing to carry the burdens of reformulating away from solvent-based coatings and we feel the burdens should not be dropped on the users through this method of calculation. Other means of policing the coating calculation must be found.

Such alternative plans such as the Acurex study "Fleet Average" principle of total solvent used would be one suggestion and was submitted to CARB.

In addition to the above comment, our company would appreciate an interpretation of traffic marking paint as a point source or mobile source. Is an exemption necessary for this application and is further study planned in this area of coatings use. We manufacture this type of coating, however, the users are governmental agencies and need to be concerned in future plans. I realize that your office has not considered all sources of FOC emissions as yet regarding coatings, however, this type of coating has some obvious difficulties in reformulation to compliance with standards such as that of CARB.

Sincerely,  
NORRIS PAINT & VARNISH CO., INC.

*Paul H. Payne*  
Paul H. Payne  
Technical Director

PHP:lp



# PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY

PORTLAND, OREGON SECTION

June 17, 1980

Mr. Peter Bosserman  
 State of Oregon  
 Department of Environmental Quality  
 Air Quality Division  
 Box 1760  
 Portland, Oregon 97207

State of Oregon  
 DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
 JUL 18 1980

AIR QUALITY CONTROL

Dear Peter,

Due to the unique climatology of the Western part of Oregon, we have contacted the major resin manufacturing companies with the enclosed letter and climatological data. As you can see from the letter, we are concerned with the availability of resin systems that are capable of being formulated into products that will comply with the VOC levels as outlined in table 1 page 31 of the proposed Administrative rules.

We have had three companies respond to the inquiry. From the response, it is evident that the resin producers cannot recommend existing resin systems that will perform under the higher humidity lower temperature of the Western Oregon climate.

Consequently, we strongly urge two things. First, maintain the air dried coatings rule at 4.00# per gallon VOC for air dried coatings, and secondly, allow a 20 ton per year VOC emission exemption limit rather than the 15# per day proposed rule.

By allowing the 4.0#gal rule vs. the possible 3.5#/gal rule, coatings companies would be able to provide, with some difficulty, a coating based on available resin technology to comply. To change to water-borne or high solids system would require the application companies to install curing equipment. Most of the curing equipment would be to simply treat the coated part to achieve satisfactory performance of the coating. Consequently, a large financial burden would have to be borne by the coatings users in both equipment purchases and energy costs to operate the equipment.

The 20 ton per year exemption would protect the smaller manufacturers from the severely adverse economic impact of the purchase of equipment for curing complying systems. I would suggest the exemption be granted for a period of 2 years, after which a review of the available technology would establish of the exemption limit could be lowered without severe economic impact.





# PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY

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PORTLAND, OREGON SECTION

Page Two  
June 17, 1980

We appreciate your taking the time to review this matter, and if we can be of further assistance, please contact us at your convenience.

Sincerely,

Stephen R. Norton, Chairman  
Environmental Committee  
Pacific Northwest Society for Coatings Technology

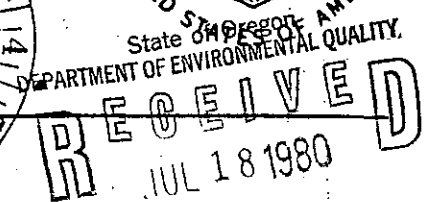
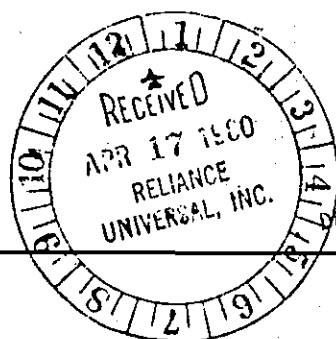
SRN/bs

# Local Climatological Data

Annual Summary With Comparative Data

1978

PORTLAND, OREGON



## Narrative Climatological Summary

The Portland Weather Service Office is located six miles north-northeast of downtown Portland. Portland is situated about 65 miles inland from the Pacific Coast and midway between the northerly oriented low coast range on the west and the higher Cascade range on the east, each about 30 miles distant. The airport lies on the south bank of the Columbia River. The coast range provides limited shielding from the Pacific Ocean. The Cascade range provides a steep slope for orographic lift of moisture-laden westerly winds and consequent moderate rainfall, and also forms a barrier from continental air masses originating over the interior Columbia Basin. Airflow is usually northwesterly in Portland in spring and summer and southeasterly in fall and winter, interrupted infrequently by outbreaks of dry continental air moving westward through the Cascade passes.

Portland has a very definite winter rainfall climate. Approximately 88 percent of the annual total occurs in the months of October through May, 9 percent in June and September, while only 3 percent comes in July and August. Precipitation is mostly rain, as on the average there are only 5 days each year with measurable snow. Seldom is snowfall measured for more than a couple of inches, and it generally lasts only a few days. The greatest measured snowfall in the period of record is 16 inches.

The winter season is marked by relatively mild temperatures, cloudy skies and rain with southeasterly surface winds predominating. Summer produces pleasantly mild temperatures, northwesterly winds and very little precipitation. Fall and spring are transitional in nature. Fall and early winter are times with most frequent fog. At all times, incursions of marine air are a frequent moderating influence. Outbreaks of continental high pressure from east of the Cascade Mountains produce strong easterly flow through the Columbia Gorge into the Portland area. In winter this brings the coldest weather with the extremes of low temperature registered in the cold air mass. Freezing rain and ice glaze are sometimes transitional effects. In summer, hot, dry continental air brings the highest temperatures. Temperatures below zero are very infrequent. The lowest recorded is 3°F. below zero. Temperatures above 100°F. are also infrequent. The highest recorded temperature is 107°F. Temperatures 90°F. or higher are reached every year, but seldom persist for more than 2 or 3 days.

Destructive storms are infrequent in the Portland area. Surface winds seldom exceed gale force and only twice in the period of record have winds reached higher than 75 m.p.h. Thunderstorms occur about once a month through the spring and summer months. Heavy downpours are infrequent but gentle rains occur almost daily during winter months.

Most rural areas around Portland are farmed for berries, green beans, and vegetables for fresh market and processing. The long growing season with mild temperatures and ample moisture favors local nursery and seed industries. Tourist visitation is very heavy in Portland in summer owing to immediate accessibility of choice recreational areas of diversified nature ranging from marine to mountain.

noaa

NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

ENVIRONMENTAL DATA AND  
INFORMATION SERVICE

NATIONAL CLIMATIC CENTER  
ASHEVILLE, N.C.

Month	Temperatures °F			Precipitation in inches			Wind						Sunshine			Number of days			Temperature °F			Avg. station pressure (mb)														
	Daily maximum	Daily minimum	Monthly	Degree days Base 55° F	Water equivalent	Snow, ice pellets	Direction	Speed m.p.h.	Average speed m.p.h.	Speed m.p.h.	Direction	Date	Percent of possible sunshine	Average sky cover, tenths, sunrise to sunset	Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, ice pellets 1.0 inch or more	Thunderstorms	Heavy fog, visibility 1/4 mile or less		90° and above	32° and below	37° and below	0° and below										
JAN	44.5	33.6	40.1	55	17	23	764	0	4.85	0.66	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
FEB	39.4	28.9	34.2	64	19	28	483	0	3.28	0.59	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
MAR	51.4	38.9	45.1	71	17	28	13	0	1.49	0.21	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
APR	58.8	42.1	50.5	74	10	35	0	0	0.30	0.05	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
MAY	64.8	44.8	54.7	84	20	35	0	0	0.22	0.04	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
JUN	73.8	54.0	65.1	91	5	47	17	58	0.99	0.21	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
JUL	80.0	59.7	69.4	98	2	49	20	141	1.36	1.07	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
AUG	79.0	59.8	67.6	101	2	48	20	135	1.23	1.05	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SEP	72.0	53.0	62.5	104	1	45	17	112	1.07	0.90	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
OCT	66.9	42.9	50.7	90	1	41	17	81	0.76	0.67	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
NOV	49.0	31.2	39.1	74	1	31	17	71	0.52	0.46	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DEC	41.0	28.9	35.3	54	1	13	31	91	0.31	0.29	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
YEAR	61.4	43.4	52.5	101	8	4803	363	30.62	1.22	18.19	NOV	5.51	3.01	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1018.7

## Normals, Means, And Extremes

Month	Temperatures °F				Precipitation in inches				Relative Humidity, pct.				Wind		Sunshine				Mean number of days						Avg. station pressure (mb)																
	Daily maximum	Daily minimum	Monthly	Record highest	Record lowest	Year	Heating Degree days Base 65° F	Cooling Degree days Base 65° F	Normal	Maximum monthly	Minimum monthly	Year	Maximum in 24 hrs.	Year	Maximum monthly	Year	Maximum in 24 hrs.	Year	Direction	Speed m.p.h.	Average speed m.p.h.	Speed m.p.h.	Direction	Date		Percent of possible sunshine	Average sky cover, tenths, sunrise to sunset	Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, ice pellets 1.0 inch or more	Thunderstorms	Heavy fog, visibility 1/4 mile or less	90° and above	32° and below	37° and below	0° and below			
JAN	43.0	32.3	38.1	62	1974	-2	1990	832	0	4.08	12.83	1984	1.02	1984	2.01	1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1018.2
FEB	35.1	25.5	30.3	64	1978	-2	1990	642	0	3.08	9.16	1984	1.02	1984	1.44	1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1018.2		
MAR	50.1	37.0	43.7	70	1980	19	1995	498	0	2.66	7.32	1987	1.10	1985	1.88	1984	12.9	1991	7.7	1991	6.0	78	6.4	1988	97	5	1983	44	6.7	3	1	1	1	0	0	0	0	0	1018.6		
APR	60.1	40.6	50.6	87	1977	29	1993	435	0	2.22	4.72	1987	0.53	1986	1.47	1982	12.9	1991	7.7	1991	6.0	78	6.4	1988	97	5	1983	44	6.7	3	1	1	1	0	0	0	0	1018.6			
MAY	67.1	48.3	58.7	92	1973	39	1986	304	0	1.90	4.37	1986	0.57	1980	1.47	1982	12.9	1991	7.7	1991	6.0	78	6.4	1988	97	5	1983	44	6.7	3	1	1	1	0	0	0	0	1018.6			
JUN	72.1	51.3	62.0	100	1962	39	1986	128	38	1.39	3.38	1959	0.83	1991	1.68	1998	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1018.6				
JUL	79.0	58.5	67.1	107	1965	43	1995	98	114	0.47	2.01	1974	0.90	1987	1.97	1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1018.9				
AUG	78.4	57.0	66.6	105	1979	42	1971	96	106	0.82	4.53	1984	0.98	1970	1.24	1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1018.4				
SEP	62.7	42.7	52.7	101	1974	38	1995	118	35	1.58	2.90	1984	0.72	1987	2.03	1989	12.9	1991	7.7	1991	6.0	78	6.4	1988	97	5	1983	44	6.7	3	1	1	1	0	0	0	0	1018.4			
OCT	47.1	32.3	42.3	75	1970	31	1991	351	0	2.61	11.57	1984	0.47	1987	2.03	1989	12.9	1991	7.7	1991	6.0	78	6.4	1988	97	5	1983	44	6.7	3	1	1	1	0	0	0	0	1018.4			
NOV	38.1	28.1	33.3	73	1970	18	1991	297	0	3.61	11.57	1984	0.37	1987	2.03	1989	12.9	1991	7.7	1991	6.0	78	6.4	1988	97	5	1983	44	6.7	3	1	1	1	0	0	0	0	1018.4			
DEC	30.0	20.0	25.0	64	1962	18	1980	233	0	4.06	11.12	1969	1.38	1976	2.99	1977	15.7	1988	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1018.4			
YEAR	61.4	43.4	52.5	107	1985	-3	1990	4792	300	37.01	12.83	1959	0.60	1967	2.02	1973	41.4	1990	10.0	1980	18.0	78	7.0	1988	97	5	1983	44	6.7	3	1	1	1	0	0	0	0	1018.8			

Means and extremes above are from existing and comparable exposures. Annual extremes have been exceeded at other sites in the locality as follows: Maximum monthly precipitation 20.16 in December 1882; maximum precipitation in 24 hours 7.56 in December 1882; maximum snowfall in 24 hours 16.0 in January 1937.

(a) Length of record, years, through the current year unless otherwise noted. BASED ON JANUARY DATA. (b) 20" Above station. \* Less than 0.1". † Feet.

RECORDS - Based on record for the 1941-1970 period. DATE OF AN EXTREME - The most recent in cases of multiple occurrence. PREVAILING WIND DIRECTION - Record through 1963. WIND DIRECTION - Numerals indicate tens of degrees clockwise from 0. Speeds in ft./hr. indicated when value exceeds 10 mph. Speeds in knots indicated when the direction is in tens of degrees.

Average Temperature

Table with columns for Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Rows range from 1940 to 1978, with record mean and minimum values at the bottom.

Heating Degree Days

Table with columns for Season, July, Aug, Sept, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, June, Total. Rows range from 1940-41 to 1978-79.

Cooling Degree Days

Table with columns for Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Total. Rows range from 1949 to 1978.

Precipitation

Table with columns for Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Rows range from 1940 to 1978, with record mean and minimum values at the bottom.

Snowfall

Table with columns for Season, July, Aug, Sept, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, June, Total. Rows range from 1939-40 to 1978-79.

\* Indicates a station move or relocation of instruments. See Station Location table.

Record mean values above are means through the current year for the period beginning in 1941.

Latitude 45° 36' N.  
 Longitude 122° 56' W.  
 Elevation (ASOUND) 21 Feet

CLIMATOGRAPHY OF THE UNITED STATES NO. 20. 35  
 CLIMATOLOGICAL SUMMARY  
 MEANS AND EXTREMES FOR PERIOD 1943 - 1972

Portland, Oregon  
 International Airport

Month	Temperature				Precipitation				Wind				Sunshine				Mean number of days											
	Normal	Extremes	Record highest	Record lowest	Normal	Maximum monthly	Minimum monthly	Year	Mean total	Maximum monthly	Maximum in 24 hrs	Year	Mean speed	Prevailing direction	Speed	Direction	Pct. of possible sunshine	Mean sky cover sunrise to sunset	Clear	Partly cloudy	Cloudy	Precipitation	Heavy fog	40" and above	32" and below	32" and below	0 and below	Average daily solar radiation (langley)
Jan.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	32	44
Feb.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Mar.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Apr.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
May	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Jun.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Jul.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Aug.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Sep.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Oct.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Nov.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Dec.	43.7	32.0	48.8	28.2	0.27	1.28	0.00	1950	4.8	0.0	0.0	1950	7.4	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	
Year	48.3	37.18	62.8	28.2	46.33	37.18	0.00	1950	8.2	41.4	10.0	1950	8.2	SE	31	SE	73	24	2	24	24	32	32	30	32	32	44	

(a) Length of record years, based on January data. Other years have only data for most or fewer years. (b) Climatological standard normals (1931-1960). (c) Also on earlier dates, months or years. (d) Below zero temperatures are preceded by a minus sign. (e) Prevailing direction for wind in the Normal, Mean, and Extreme table is from records through 1950. (f) To 8 compass points only.

CLIMATE OF PORTLAND, OREGON

The table above, as well as those of temperature and precipitation on the reverse, are based on observations made by the Weather Service Office at the Portland International Airport. The airport lies at the north edge of the city of Portland and along the south bank of the Columbia River, just 9 miles east of its confluence with the Willamette River. Portland is about half way between the Coast Range on the west and the Cascade Range on the east, each about 30 miles distant. The crest ridges of these ranges at this point are between 1,500 and 2,500 feet above sea level in excess of 10,000 feet. Many of the major peaks in the Cascades remain snowcapped throughout the year. The coast line of the Pacific Ocean is 65 airline miles west of the city.

Most winter storms that move in from the Pacific Ocean several times each winter. Similarly, the Cascade Range forms a barrier to the continental air masses of the Interior Columbia Basin. Portland has a very definite winter rainfall climate. Approximately 66% of its annual total falls during the period October through May. The combined June and September total is 3%, with only 3% falling in the July-August period. Practically all the precipitation falls as rain. There are only 5 days a year, on the average, with measurable snow. Only rarely do greater depths than a couple of inches accumulate and this usually melts in a few hours or at most in 2 or 3 days. The greatest 24-hour snowfall ever to be observed, in downtown Portland, where records have been maintained for over 100 years, was 16 inches. However, 24-hour falls of more than 6 inches have occurred only about 15 times since 1871.

Most air masses that arrive in Portland have only a short time before completed several days' travel over the Pacific Ocean. In that travel they have acquired temperatures very near that of the ocean. Despite some modification by the 65 miles of land air must cross before arriving in Portland, the ocean still exerts a strong moderating effect upon the extreme temperatures of both winter and summer. The very cold or very warm spells that do occur are associated with an occasional push of continental air from the east through the Columbia Gorge. Temperatures of 100° or more occur only about every other year on the average, while those below zero only about once in 50 years. The absolute lowest ever recorded at either downtown Portland or the airport was 3° below zero at the airport. An extreme maximum of 107° has been recorded at both locations. Scldow do either the unusually warm or cold spells last more than 2 or 3 days. The average dates of the last occurrence in spring and first in fall of a temperature of 32° are March 27 and November 17, respectively. This gives Portland an average growing season of approximately 240 days.

Most large scale air masses at this latitude are moving from the west to the east. Thus, the Pacific Ocean does exert a major influence on Portland's climate. The Coast Range, however, greatly modifies this incoming marine air before it reaches the valley floor of the Willamette River, at whose northern extremity Portland is located. The orographic lifting of this air as it crosses these mountains reduces its temperatures by several degrees causing large quantities of its moisture to precipitate out as rain or snow on the upper slopes. The result is that along the crest of this range, in Oregon and its continuation into Washington, occurs some of the heaviest rainfall in the continental United States. Once that air has crossed the Coast Range, however, precipitation drops off rapidly. The annual total at some points decreases at the rate of 10 inches for each airline mile to the east. Further cooling of the air is reported in winter by the lower temperature of the land surface over which it is moving. In summer, the air cools as it descends from the ocean to the land and the air cools before it is warmed by its contact with the land. In either case the marine air has become much drier before it reaches Portland.

Most of Portland's precipitation is light (0.10 inch per hour or less). Heavy rains (those falling at a rate of more than 0.30 inch per hour) are very infrequent and are usually associated with summer thunderstorms. Because of their usefulness to certain industries, the maximum short period rainfall amounts ever recorded in Portland are shown below:

The climate of the Willamette Valley is suited for the growth of a very wide range of crops. Within a radius of 20 miles of the city, many millions of dollars' worth of berries, vegetables, tree fruits, walnuts and filberts are produced annually. Berries and vegetables are produced both for the fresh market and for the many processing plants in and near Portland.

Greatest Intensity of Record, All Years, for each Month

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
3.0	1.5	1.6	1.8	2.4	2.8	2.6	4.0	2.8	2.3	2.1	1.6
10 minutes	2.8	4.1	2.1	2.6	3.7	4.6	5.1	5.4	4.8	2.5	2.6
10 minutes	4.2	2.7	3.5	3.8	4.3	4.6	6.9	4.2	3.7	3.1	4.1
1 hour	4.7	3.1	3.4	4.3	4.9	5.3	8.7	5.3	4.9	4.9	6.0
2 hours	1.16	1.76	1.61	2.51	2.91	2.79	7.75	4.84	3.96	3.96	5.96
24 hours	6.86	3.81	2.56	3.81	4.33	3.33	13.88	7.96	4.43	7.66	6.66

James B. McWhorter, Meteorologist in Charge  
 WFO, 1001 E. Marine Drive, Portland, Or. 97214

Portland, Oregon  
 International Airport



WESTERN REGIONAL OPERATIONS

GATX TERMINALS CORPORATION

2000 EAST SEPULVEDA BLVD.  
CARSON, CA90744  
PHONE 213-830-5886 518-0973

May 9, 1980

MAILING ADDRESS:  
P. O. BOX 9007  
LONG BEACH, CA90810

Department of Environmental Quality  
State of Oregon  
522 S.W. 5th Avenue  
P. O. Box 1760  
Portland, Oregon 97207

*PPB*  
*MSA*  
EGC  
Hearing Section

Subject: Comments on  
New and Revised VOC Regulations;  
4/03/80 Draft

MAY 21 1980

Gentlemen:

Please incorporate the following comments into the record on these VOC Regulations:

Page 8 (340-22-102) gives the definition of "True Vapor Pressure" which states that API 2517 is to be used for vapor pressure determination. The use of the API method is typical among State regulations.

Note that on Page 17 of API 2517, the bulletin reads:

"The average stock temperature should be used in the vapor pressure charts to determine the true vapor pressure. For a given operation, this usually is known with fair accuracy because it is used regularly for volume corrections in gaging operations."

Given this, GATX does not understand why the DEQ staff chose to give any special significance to methanol in 340-22-160(1) because:

- (1) The fact that during Summer the vapor can exceed 1.5 psia is inconsistent with the 340-22-102 method of vapor pressure determination for formula application.
- (2) There are many marginal petrochemicals (GATX handles several) besides methanol.

AIR QUALITY CONTROL

RECEIVED  
MAY 12 1980  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
State of Oregon  
...continued

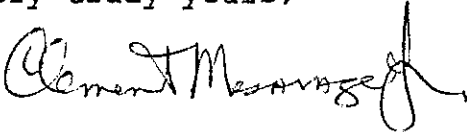
Department of Environmental Quality  
State of Oregon

Re: VOC REGULATIONS

Hence, GATX asks why 340-22-160(1) doesn't just read "storing organic compound liquids", and why DEQ doesn't allow average temperature use per 340-22-102.

Thank you for reviewing our comments submitted before on these regulations relating to equipment testing and record keeping. Please feel free to call the undersigned on the above vapor pressure comment if further elaboration is necessary.

Very truly yours,



Clement Mesavage, Jr.  
West Coast Manager of Environmental Affairs  
GATX TERMINALS CORPORATION

CM:rs

cc: Mr. P. E. Bohlander  
GATX Terminals Corporation  
120 S. Riverside Plaza  
Chicago, Ill. 60606

BORDEN CHEMICAL  
DIVISION OF BORDEN INC

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 14 1980

AIR QUALITY CONTROL



MAY 21 1980

EAC  
Hearing Section

May 12, 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RECEIVED  
MAY 15 1980  
AIR QUALITY CONTROL

Environmental Quality Commission  
P. O. Box 1760  
Portland, OR 97207

Attention: P. B. Bosserman

*P.B. 5/14/80* *RK 5/15/80*

We have reviewed the proposed VOC rules you sent us on April 29, 1980. Our interpretation of these rules are that our La Grande and Springfield, Oregon plants do not violate these rules as the plants are now operated. According to OAR340-22-104(3) we are exempt from the General Emission Standards for Volatile Organic Compounds since we emit less than 90,720 Kilograms (100 tons) per year of VOC and are outside of the three critical areas of Portland and Medford AQMA and the Salem SATS.

We recognize that conditions and rules may change in the future. We would expect to have an opportunity to comment on any future rule changes.

We have two comments on the presently proposed rule changes:

- 1) We interpret rule 340-22-160(1) to mean that if we can assure that the true vapor pressure of methanol will always be less than 1.52 psia that it would not be subject to the VOC corrective actions. Under certain circumstances it might be more cost effective to maintain the stored methanol at temperatures not to exceed 61°F, the temperature at which the true vapor pressure of pure methanol approaches 1.52 psia. If the rule does not allow this option, we request the rule be reworded to allow this method of controlling the VOC.
- 2) We interpret rule 340-22-160(1)(b) to allow control devices other than floating roofs or internal floating covers. The mechanism for approval of any equivalent device or a method of demonstrating its equivalency is vague. We request some procedural clause be included for this, such as rule 340-22-160(4)(c)(A)(ii).

Very truly yours

*R.W. Berwald*

R. W. Berwald  
Engineering Manager  
Adhesives & Chemicals - West

RWB:sh

cc: J.W. Runkel - Blvu.  
A.D. Johnston - Blvu.  
Dave Burre - Col.  
J.M. Hine - Spfd Lab





State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 19 1980

AIR QUALITY CONTROL

May 16, 1980

EQC  
Hearing Section

MAY 21 1980

Mr. Peter B. Bosserman  
Department of Environmental Quality  
State of Oregon  
525 S.W. 5th - Fourth Floor  
Portland, OR 97207

Dear Peter:

It was a pleasure meeting you and hearing your comments last month on the Surface Coating Rule which is in the drafting stage in the State of Oregon. I thought your comments were very well received. Olympic certainly supports the efforts of the Department of Environmental Quality to develop regulations which are intended to protect the safety and health of the citizens of Oregon. We have devoted a great deal of our time and effort to develop waterborne coatings for the industries we serve, and we have made a commitment to continue research and development at Olympic.

After reviewing the proposed rule, we have become greatly concerned about the impact it would have on the small number of businesses in Oregon that are engaged in machine staining operations. There are several independent businesses throughout the state which use solvent based stains (such as solid color and semi-transparent stains) at their shops for machine staining plywood and other interior and exterior wood siding. Because of the VOC limitations in the proposed rule, these companies would be forced to seriously curtail their machine staining operations, or to discontinue them entirely.

This would result in a very serious economic hardship. It is a result we believe is not justified for two reasons. First, machine staining operations contribute only insignificantly to VOC emissions in Oregon. The companies which use Olympic Stain products for machine staining and the total gallons per year of stain applied by each of them are listed below:

*17850 SW Barnes Fy Rd*  
Lakeside Lumber in Lake Oswego  
Bend Roof & Truss Manufacturing  
in Bend  
Portland Road Lumber in Salem  
Rouge Machine Staining in Medford  
Western Prestaining in Portland  
Central Lane in Eugene

gallons

gallons

gallons

gallons

gallons

gallons

*gal/yr*

*considered  
confidential  
by Haden 5/19/80*

Letter TO: Mr Peter B. Bosserman  
Page 2  
May 16, 1980

Our calculations are that the total VOC emissions in Oregon from machine staining operators using Olympic Stain products are approximately 135 tons per year. It is our understanding that there are very few other companies engaged in machine staining operations in Oregon. Although we agree that reduction of VOC is desirable, the amount resulting from prestaining operations throughout the state appears to be very limited.

The second major reason we believe that machine staining operations should be exempt from the proposed rule is because of the importance of stains in architecture and the unavailability of waterborne substitutes. As I am sure you are aware, stains are widely used in Oregon residential and commercial architecture to protect and beautify wood homes, offices and other structures. Stains also have an integral relationship with the wood products industry because they are necessary to protect natural wood siding that is extensively used in northwest architecture today. Machine staining operations provide an efficient and effective way of applying this protection to wood. Because of the careful control that can be exercised over the rate and quantity of stain being applied in machine staining operations, we believe that VOC emissions from machine staining operations are less than when staining is done on the job site.

Unfortunately, the technology does not exist today to produce an acceptable water borne or low solvent stain for use on most woods. Although Olympic and other companies have been engaged in extensive research to develop an adequate substitute, the necessary technological breakthroughs have not occurred; and because of the inherent difficulties involved, we do not foresee a near term solution to the problem. To help explain the difficulties, we have prepared a short paper that explains the use of stains and the problems such as extractive discoloration, inadequate ultraviolet screening, coating failure and other problems that exist in finding an acceptable substitute for solvent based stains. I am enclosing it for your review and consideration.

We hope you will take our concerns into consideration and that you will exempt machine staining operations using solvent borne stain from the surface coating rule. If you believe any additional information would be helpful please let me know.

Sincerely yours,

OLYMPIC STAIN  
A division of COMERCO, INC.

  
William S. Hahn  
Technical Director

WSH/c1a

cc: Victor R. Feltin

Enclosure

OLYMPIC STAIN

Solvent Borne Stains Are Important  
Architectural Coatings for Which Adequate  
Low Solvent Substitutes Do Not Exist

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 19 1980  
AIR QUALITY CONTROL

Olympic Stain manufactures stains that are widely used in the United States for application to wood surfaces on homes and other buildings. Olympic's solvent borne semi-transparent and opaque stains have been successfully used for a number of years to protect and beautify natural wood finishes.

Stain is a penetrating finish that protects and beautifies natural wood. The basic difference between paint and stain is that paint forms a thick and continuous surface film that obscures the grain and texture of wood. Stain on the other hand penetrates into the pores of wood and does not leave a hard and continuous surface film when it dries. Semi-transparent and opaque stains are the two basic stain categories. Semi-transparent stain is specifically formulated to allow the natural wood grain and texture to show through. These stains are widely used in many colors by architects, builders and home owners in Oregon and other states on redwood, cedar, mahogany and fir to achieve a natural look on siding and trim. Opaque stains in contrast are formulated to obscure the color and the grain of wood, but to allow the natural texture to show through. These stains are highly popular with architects, builders and home owners who want to have a solid color but also retain the rustic appearance of wood on shingles, shakes and other siding. Examples of the

extensive use of stains for residential, commercial and other architectural purposes in Oregon and other states are shown by the accompanying illustrations.

At the present time, solvent borne stains are the only semi-transparent stains that will provide acceptable performance for use in exterior coatings for wood sidings. Olympic has recently introduced a solid color acrylic latex stain that can be successfully applied to some woods. But it is not recommended for application on many popular species such as redwood, cedar, mahogany and fir because of the discoloration from extractive bleeding that may occur when water soluble coatings are applied to these wood substrates.

Due to the ease of application and clean up, there is a very strong consumer preference for water based coatings. Even apart from the important environmental considerations involved, the strong consumer desire for using water based coating products would lead the coating industry to turn away from more costly solvent borne coatings if the technology existed to produce water borne stains with acceptable performance qualities. Although Olympic and other companies have been engaged in extensive research to develop acceptable water based opaque and semi-transparent stains, there are major obstacles that have yet to be overcome.

One of the principal problems in developing a water based semi-transparent stain is extractive bleeding. This occurs in

redwood, western red cedar, mahogany and dark fir, wood species which are extensively used in Oregon. These woods contain water soluble extractives which dissolve in water but not in solvents. In a process known as extractive bleeding, these water soluble extractive dyes dissolve when moisture enters wood and then migrate to the surface where they create unsightly reddish-brown stains that permanently discolor the wood and the coating. Solvent borne coating products do not cause this problem because petroleum solvents do not dissolve the extractive dyes or cause them to migrate to the surface of the wood. A typical example of the unacceptable discoloration cause by application of water based stain to wood containing natural extractive dyes is shown in the accompanying illustrations.

Another major problem with water borne or high solid coatings is their inability to provide the necessary penetration required for a stain. In order for a stain to perform properly it must penetrate rapidly and deeply. Rapid penetration of the coating causes less of the film to remain on the surface and results in the low film characteristic of stains. Deep penetration of the oil into the wood pores reinforces the cellular structure of the wood and protects it against entry by moisture. Penetration of the coating is possible with solvent borne stain because the oil and pigments in the stain dissolve completely into a liquid solution that can penetrate into and impregnate the smallest wood pores. When the solvent evaporates the oil left in the cells hardens and reinforces the cellular structure of the

wood. In contrast, water borne coatings do not penetrate into the wood. They contain particles suspended in water that are too large to enter the wood pores and are filtered out onto the surface where they form a film. If the film is sufficiently thick to provide any protection for the wood there will be a loss of the transparency characteristic of semi-transparent stains.

One possibility in the future for achieving the necessary penetration of water borne stains is through a reduction in the size of the particles in the liquid coating. This has been a subject of research for a number of years, but the coatings industry has not yet been able to synthesize particles small enough or in the right shape to permit any measure of penetration into wood. Attempts have also been made to achieve penetration by making oils and resins in coatings water soluble so that they become a liquid solution rather than an emulsion. The difficulty is that once oils and resins are made water soluble they remain that way. After application, the oils and resins do not harden properly, the coating remains water sensitive, and will then rinse off in the rain. It has also not proven possible to achieve the necessary degree of penetration with a high solid system. A solvent content of about 75% total volume of a coating is necessary in order to lower the viscosity of oils and pigments sufficiently to achieve the penetration necessary for a semi-transparent stain. If the solvent content is substantially reduced the coating resembles a thick oil like substance that cannot be successfully applied to wood.

Solvent borne coatings such as stain are also essential for cool weather application. Low temperatures do not pose a problem for the application of solvent borne stains because the solution of oils and resins polymerize regardless of temperature as the solvent evaporates. However, the lowest temperature at which water based latex emulsion paint should be applied is 50°F. (Painting and Decorating Contractors of America, Architectural Specifications Manual, pp. 3-5) Below that temperature, the emulsion particles will not coalesce to form a continuous coating and the finish will not protect the surface when it dries. This is a problem because industrial tests have shown that it is essential to apply protective coatings to wood without delay following construction. After only one week of exposure to the weather without protective coating, wood siding will exhibit significant deterioration within a matter of several years. Because of the necessity of protecting new wood and the unsuitability of water based stains for application below 50°, winter construction activities in Oregon would be seriously hindered if solvent borne paints or stains could not be used.

Water based semi-transparent latex stains also do not provide adequate ultraviolet screening to protect the wood substrate. As semi-transparent latex stain weathers, ultraviolet light from the sunshine penetrates to the wood and causes serious degradation of the wood surface after a period of time. Because of this, semitransparent latex stains tend to fail by flaking. Even if this failure takes place after several years of exposure,

it creates a serious problem because the wood surface is then unsuitable for recoating without extensive preparation. In the case of solvent borne semi-transparent stains, there is also an erosion of the stain film as it absorbs ultraviolet radiation. In contrast to latex stain, however, solvent borne stain degrades through a chalking process which allows restaining without extensive preparation work.





**HYSTER  
COMPANY**

P.O. BOX 2902  
PORTLAND, OREGON 97208  
503/280-7000  
CABLE: HYSTER PORTLANDORE

*PRB*

CORPORATE  
HEADQUARTERS

May 16, 1980

**EAC**  
Hearing Section

TO: Department of Environmental Quality  
Air Quality Division  
P.O. Box 1760  
Portland, Oregon 97207

MAY 21 1980

Re: Public Hearing - Revised Regulations For The  
Control Of Certain Volatile Organic Compounds

We have studied the Department of Environmental Quality's revised proposal for regulation of volatile organic compounds and ask that the following comments and suggestions be considered by the Department and entered in the record of the public hearing scheduled for May 21, 1980.

Hyster Company is engaged in the manufacture, sale and servicing of heavy machinery and equipment, primarily industrial fork lift trucks. In reviewing the revised proposal, and looking towards methods to achieve compliance, our primary interest is therefore with the proposed surface coating rules. A majority of Hyster Company's surface coating activity involves the application of standard yellow and black primers and top coatings. A number of alternatives have been explored to obtain lower volatile organic compound emissions from these standard colors. Many of these alternatives are either impractical or uneconomical because of considerations such as drying time or durability. The manufacturers of these paints do, however, indicate that paints are or will be available that have higher solids content than the paints presently used by the company. Use of these higher solids paints appears to be a feasible means to significantly reduce the volatile organic compounds in the company's standard paint colors.

However, the situation is not the same with the substantial portion of Hyster Company's business involving customized prime and top surface coatings using paints with color or performance characteristics required or specified by our customers. As an example, Hyster Company's towing winch products are manufactured for attachment to crawler tractors and similar products of other manufacturers. These manufacturers specify the paints and colors to be used so that the towing winches will match the colors of the tractors to which they are attached. Customers for Hyster Company industrial fork lift truck products also often specify and require a particular paint or color for durability, identification or other reasons. Unlike its standard yellow and black surface coatings

Hyster Company does not have control over the level of emissions from custom coating since the paints are specified by the customer and the volume of custom coating compared to Hyster Company's total painting activity depends solely on the mix of customer orders entered at a given time.

Our analysis and investigation indicates that these custom coatings cannot comply with the 4.0 pounds per gallon limitation on volatile organic compounds under proposed regulation 340-22-170. For this reason it is essential to Hyster Company's continuing business that there be some exception made for custom surface coatings similar to the 35 vehicle per day exception now proposed for the automobile and truck manufacturing industry. Many of the considerations that resulted in the need for and creation of that exception exist and are equally a problem in the heavy machinery and equipment industry. To accommodate this we suggest an exception for custom surface coating of heavy machinery of up to 20,000 pounds of volatile organic compounds per year. Wording of such an exception for inclusion in the revised regulations is enclosed for your consideration. Such an exception would retain the obligation for Hyster Company and others to make a contribution to emissions reduction in the area of standard paint colors where significant improvement is possible while recognizing the difficulty that exists with respect to custom coatings.

Turning to the company's overall surface coating operations including both standard and custom coatings, we estimate Hyster Company's present usage at about 18,400 gallons of paint each year containing volatile organic compounds approximating 4.95 pounds per gallon or a total of 91,080 pounds per year. This calculation includes consideration of thinning agents used with the paint. To reduce this to a level of 4.0 pounds per gallon would require a reduction of 17,480 pounds of volatile organic compounds per year to a total of 73,600 pounds per year.

We calculate that converting the company's standard yellow and black colors to available higher solids content paint containing 3.5 pounds per gallon of volatile organic compounds (and assuming continued use of the present volume of thinning agent) will reduce the company's yearly emissions of volatile organic compounds to 66,300 pounds or well below that needed to achieve a 17,480 pound reduction. However, we are informed that conversion to use of higher solids paint will reduce the total gallons of paint required for the same volume of surface coating from 18,400 gallons to 15,030 gallons per year and therefore the volatile organic compounds on a pounds per gallon basis will still be at 4.1. This results in the anomaly that while volatile organic compound emissions can be reduced by substantially more than the total reduction needed to meet the goal of the regulations, the pounds per gallon volatile organic compound emissions will not technically meet the proposed 4.0 pounds per gallon limit.

May 16, 1980

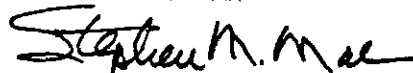
We anticipate and are hopeful that long range developments in surface coatings technology will permit meeting the 4.0 pounds per gallon limitation, but for the foreseeable future it appears the only improvement available to Hyster Company is through higher solids paints and the only feasible way for Hyster Company (and, we assume, other heavy machinery manufacturers) to comply with the proposed regulations will be through approval of an alternative control system under Section 340-22-108 based on achievable overall yearly volatile organic compound emission reductions.

For this reason we strongly urge that the proposed alternative control systems procedure be retained in the adopted regulations as presently proposed. The allowance of effective alternate control systems will permit Hyster Company and others in the heavy machinery and equipment industry to develop means for achieving the overall reductions in volatile organic compounds that are the ultimate goal of the regulations without limiting achievement or measurement of compliance to methods that are not technologically or economically possible.

We appreciate the opportunity to comment on the revised regulations. Hyster Company is interested in contributing to the goal of reducing overall emissions of volatile organic compounds and will be glad to further discuss with you our proposed exception for custom coating and the application of products and technology available to Hyster Company to accomplish the overall purpose of the revised regulations if it would be helpful to your efforts.

Very truly yours,

HYSTER COMPANY



Assistant Secretary

Stephen M. Malm  
jm

cc: Mr. Peter Bosserman  
Senior Environmental Engineer  
Department of Environmental Quality  
P.O. Box 1760  
Portland, OR 97207

Mr. George Hofer  
Environmental Protection Agency  
Air Programs  
1200 Sixth Avenue  
Seattle, WA 98101

Enc.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 19 1980

AIR QUALITY CONTROL

PROPOSED ADDITION TO OAR 340-22-170  
PROVIDING GENERAL EXCEPTION FOR  
UP TO 10 TONS/YEAR OF CUSTOM COATING  
OF HEAVY MACHINERY AND EQUIPMENT

Add to 340-22-170(2)(b):

- (2)(b)(3) Custom coatings applied to heavy machinery and equipment, provided that emissions from all such coatings thereby excepted at any source shall not exceed 9080 kilograms (20,000 pounds) of volatile organic compounds in any year. For purposes of this exception, the term "custom coating" shall mean any surface coating having color, performance or other characteristics specified or required by a customer and that is not a standard coating of the manufacturer.



**Chevron U.S.A. Inc.**

P. O. Box 220, Seattle, WA 98111 • Phone (206) 628-5260

May 19, 1980

A. O. Rolseth  
Division Operations Manager  
Northwest Division  
Marketing Department

ECC  
Hearing Section

MAY 21 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 21 1980

**AIR QUALITY CONTROL**

Department of Environmental Quality  
Air Quality Division  
Box 1760  
Portland, OR 97207

Gentlemen:

Chevron U.S.A. Inc. is pleased to submit the attached written comments as public testimony regarding the new and revised Oregon regulations for control of certain volatile organic compounds and revised permit fee schedule.


We have thoroughly researched these comments and have given serious thought to all statements. Your thoughtful consideration of each comment will be appreciated.

The Western Oil & Gas Association is also presenting testimony on these regulations, and Chevron U.S.A. Inc. hereby endorses their presentation.

Very truly yours,

A. O. ROLSETH

By

  
H. R. Solomon - Lead Engineer

HRS:wr  
Attachments

CHEVRON U.S.A. INC.  
Comments  
STATE OF OREGON  
Environmental Quality Commission  
VOC Regulations  
May 21, 1980 Public Hearing

Chevron U.S.A. Inc. comments for the new and revised regulations for the control of certain volatile organic compounds are as follows:

OAR 340-22-100 Introduction

- (3) a. New sources statewide which will emit 100 tons of VOC per year or more; existing 100 ton sources statewide in categories b thru m below, and all existing sources in the Portland and Medford AQMA's and in the Salem SATS for categories b thru m below.

Comment:

Chevron strongly encourages Oregon not to adopt statewide VOC RACT regulations at this time for several reasons:

1. Application of RACT regulations outside of designated non-attainment areas is not necessary to obtain EPA approval of the SIP. A state would lose considerable flexibility by including statewide RACT regulations in a SIP. Once approved, the state cannot change the regulations without again going through the ponderous SIP revision process. Also, the state increases the risk of Federal sanctions being imposed on the state by EPA for inadequate implementation or enforcement of the SIP.
2. The revised EPA emission offset policy published on January 16, 1979 in the Federal Register applies to newly designated NA areas until the state submits an EPA-approvable revised SIP. The offset policy states that a new source may be exempt from offset requirements only under very limited conditions; i.e., if the owner can demonstrate the source will have virtually no effect on any ozone NA area. This limitation appears much more stringent than the guidance given to the state on this point.
3. Only future major sources locating in areas that are officially re-designated non-attainment for ozone and demonstrated to be rural and that demonstrate they will have no impact on urban non-attainment areas would be exempt from emission offsets.

Thus a costly and unfair burden is placed on all affected existing sources statewide (with no demonstrable air quality benefit) for a potential benefit to selected future sources.

Due to the above uncertainties and the burden of such statewide regulations on existing industry, we recommend that Oregon do the following at this time:

1. Determine more explicitly from EPA the legal basis and necessary conditions for obtaining an exemption from emission offsets.
2. If the state still believes statewide RACT regulations are warranted, adopt the regulations but apply them to future NA areas after they are proposed, rather than require immediate statewide implementation. This action will reduce the potentially unfair burden on existing industry and still meet EPA conditions for exempting new sources from offset requirements.

This approach would avoid unnecessary expenditures by existing industry and should be as acceptable to EPA as the states' current approach.

In addition, Chevron again urges the Commission to review the regulation that requires controls on small sources (i.e., under 100 tons per year) in the Medford AQMA and Salem SATS. It is our understanding that both areas would be classified as rural under EPA's population criteria. EPA does not require small source controls in rural non-attainment areas for a SIP to be approvable. Requiring controls on small sources in these areas is questionable. They could not be cost effective as the controls can lay idle during the period November thru March each year.

#### 340-22-102 - Definitions

- (4) "Carbon Bed Breakthrough" means the initial indication of depleted adsorption capacity characterized by a sudden measurable increase in VOC concentration exiting a carbon adsorption bed or column.

#### Comment:

The definition does not appear to allow degradation of emission which may still be within an allowable emission rate. Example: An increase from 2% to 6% VOC emission when 10% is allowable. It is recommended that EPA's definition, from their guidance document EPA-450/2-79-004, September 1979, be substituted. It is stated as follows:

"Carbon Bed Breakthrough: A concentration of VOC in the carbon adsorption device exhaust that exceeds 10 percent by weight of the inlet VOC concentration."

- (5) "Certified Underground Storage Device" means vapor recovery equipment for underground storage tanks as certified by the State of California Air Resources Board Executive Orders, copies of which are on file with the Department.

#### Comment:

The above definition could be confusing and would limit this control to recovery equipment which has been certified in California. We suggest that "Certified Underground Storage Device" be replaced by "Vapor Balance System", which is defined as follows:

(Refer EPA-905/2-78/001 April 1978.)

"Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded."

(The system will have an efficiency of 90% in reducing VOC emissions over uncontrolled emissions.)

- (25) (a) A physical change shall not include routine maintenance, repair and replacement, unless there is an increase in emission.

#### Comment:

In petroleum operations it would be virtually impossible to perform some maintenance, repair and replacement functions without some temporary localized increase in emission. Enforcement would be difficult and could be very costly. We strongly recommend adding a phrase such as "unless there is a permanent increase in emission caused by the routine maintenance, repair or replacement action."

Examples: Tank cleaning or tank repairs - Safety cannot be compromised where preparing a gasoline tank by evacuating the vapor before entry or hot work by humans. Also, you could not break a gasoline pipe line or repair a gasoline meter without some small increase in emission.

This type of work is done under various industrial, safety and fire standards and codes which control exposure to hazards for humans. Normal operating practices will produce the minimum VOC vapor release to accomplish the job.

OAR 340-22-104

- (2) All existing, stationary sources, statewide, which have processes subject to these VOC rules and which emit or are allowed more than 100 tons per year of VOC emissions shall comply with OAR 340-22-110 to 340-22-220 by December 31, 1981.

Comment:

Please refer to our comment for OAR 340-22-100 (Introduction). In the event it is determined that statewide controls will be required for major (100 ton) sources, we would like to make the following comment for (2) above:

"It is not clear if statewide sources which emit or are allowed more than 100 tons of VOC emissions per year mean sources with a potential to emit 100 tons with or without controls. It is recommended that only emissions, after controls have been installed, be counted towards the 100 annual tons. To do otherwise for existing sources in attainment or unclassified areas for ozone, would not be cost effective. It would unduly penalize those sources that could reduce total emission to below 100 tons by the most cost effective measures."

- (3) Small sources (emitting less than 90,720 Kilograms of VOC per year) outside the following areas are exempted from the General Emission Standards for Volatile Organic Compounds:

- (a) Portland-Vancouver Air Quality Maintenance Area.
- (b) Medford-Ashland Air Quality Maintenance Area
- (c) Salem Area Transportation Study (SATS) Area

Comment:

Refer to our comment for Small Source VOC Controls 340-22-100 (Introduction).

340-22-108 Applicability of Alternative Control Systems

- (1) (d) The alternative control system is approved by the Environmental Protection Agency.

Comment:

We suggest that (c) "Approval is granted in writing by the Department" should be sufficient for approval of alternative control systems. A revision to the SIP may result from requiring EPA approval.

340-22-110 Small Gasoline Storage

- (1) (b) A vapor recovery system is used which consists of a Certified Underground Storage Tank Device capable of collecting the vapor from volatile organic liquids and gases



so as to prevent their emission to the outdoor atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place, or

Comment:

It is recommended that reference to "Certified Underground Storage Tank Device" be changed to "Vapor Balance System" or "Vapor Control System." This would be more descriptive of what is being accomplished by the control measure.

(2) Exemptions:

- (c) Stationary gasoline storage tanks located at a gasoline dispensing facility that are filled by a delivery vessel which was filled at a bulk gasoline plant (one which loads less than 4,000 gallons per day of gasoline) provided that the storage tanks use submerged fill. However, no person shall deliver gasoline to a gasoline dispensing facility at a rate exceeding 10,000 gallons per month from a bulk gasoline plant, unless the gasoline vapor is handled as required by Rule 340-22-110 (1).

Comment:

Refer to OAR 340-22-100 for our comment on Controlling Small Sources (less than 100 tons) in Rural Non-attainment Areas for ozone. This rule does not recognize EPA's approved difference in control requirements between urban and rural areas.

In addition, we believe that the EPA should approve exemptions, for certain small tanks which are delivered by trucks loading at gasoline terminals, from vapor recovery regulation. Submerged filling would still apply. Based on EPA guidance document EPA-905/2-78-001 dated April 1978, the following tanks could receive the exemption:

- (1) any stationary storage tank located at a gasoline dispensing facility, with a capacity less than 7,580 liters (2,000 gallons), which is in place before January 1, 1979; and,
- (2) any stationary storage tank located at a gasoline dispensing facility, with a capacity less than 948 liters (250 gallons), which is installed after December 31, 1978.

We urge the commission to include this exemption in this regulation.

340-22-120 Bulk Gasoline Plants and Delivery Vessel(s)

- (c) If a bulk gasoline plant transfers less than 4,000 gallons of gasoline per day (annual thrupt divided by the days worked), capture of displaced vapors during the filling of delivery vessel(s) from the bulk plants is exempt from 340-22-120 (b) and the bulk plant's customers are exempt from 340-22-110 (b) and (c).

Comment:

This rule should only apply to the urban non-attainment areas of the state. Rural non-attainment areas should have an exemption of 20,000 gallons per day on an average annual daily basis. Oregon would then be consistent with other states.

340-22-130 Bulk Gasoline Terminals

- (3) Bulk Gasoline terminals shall comply with the following within the limits of 340-22-130 (1):

- (a) All displaced vapors and gases during tank truck gasoline loading operations are vented only to the vapor control system, except when gasoline delivery vessels are switched to diesel delivery service or to delivery of other VOC with a Reid vapor pressure less than 1.5 psia.

Comment:

We believe that the 1.5 psia vapor pressure value is in error and should be 4.0 psia. This will then be consistent with the definition of "Gasoline" in section 340-22-102, (17).

340-22-137 Testing Vapor Transfer and Collection Systems

- (1) After (April 1, 1981,) no person shall allow a vapor-laden delivery vessel subject to 340-22-120 (1) to be filled or emptied unless the delivery vessel:

Comment:

The EPA guidance document EPA-450/2-79-004 dated September 1979 suggested the following compliance schedule as being appropriate; which would still demonstrate further progress towards achieving this ozone standard. We suggest that Oregon adopt this schedule with a minor revision because of the period each year when control equipment may lay idle.

(EPA Pg. 132) "The owner or operator of a gasoline tank truck subject to this regulation must meet the following increments or progress:"

1. Submit plans to the Director for operating and maintenance procedures to implement regulations before September 15, 1980;
2. Issue purchase orders or contracts for all needed test equipment before November 1, 1980;
3. Commence certification of gasoline tank trucks before July 1, 1981; and,
4. Complete initial certification of all gasoline tank trucks before January 1, 1982.

Recommended change for No. 4 in the above schedule is:

4. Complete initial certification of all gasoline tank trucks before April 1, 1982.

- (1) (b) Sustains a pressure change of no more than 250 pascals (1 in. of H<sub>2</sub>O) in 5 min when pressurized to a gauge pressure of 4,500 pascals (18 in. of H<sub>2</sub>O or evacuated to a gauge pressure of 1,500 pascals (6 in. of H<sub>2</sub>O) during the testing required in subsection (1) (a) of this rule; and

Comment:

EPA guidance Document EPA-450/2-79-004 dated September 1979 recommends a less stringent certification test as being adequate for testing all sizes of delivery vessels. We have seen no evidence to indicate a need for the proposed more stringent test or that such a test would lead to improved air quality.

(EPA Pg. 129) (2)" sustains a pressure change of no more than 750 pascals (3 in. of H<sub>2</sub>O) in 5 min when pressurized to a gauge pressure of 4,500 pascals (18 in. of H<sub>2</sub>O) during the testing required in subparagraph (a) of this section"

For the following reasons, we strongly recommend adoption of the EPA rule in place of the proposed Department rule.

The Department observed a vessel test which sustained a pressure change of no more than 1" of H<sub>2</sub>O in 5 minutes which is the California A.R.B.'s rule. We were advised that this test was made on newly manufactured equipment which had a large capacity vessel.

Based on the 1" H<sub>2</sub>O pressure decay in 5 minutes rule, Chevron has conducted weekly certification pressure decay tests on a portion of its Southern California fleet. Data is available for 12 delivery tanks. Nine have been tested 21 weeks or more. The units include truck and trailers and semis. The tanks were tested to ascertain their off-the-road certification pressure decay rate, repaired if necessary or desirable, then repaired to meet annual pressure criteria.

There were 47 periods between certification, subsequent failure, maintenance and recertification totalling 163 weeks. The average time between failures is 3.5 weeks. The time period between certifications and failure was distributed as follows:

Time in Weeks									
Certification to Failure	1	2	3	4	5	6	6	19	16
No. of Failures	9	11	10	7	3	3	2	1	1

Interim maintenance was accomplished on the 7, 10 and 17 time periods. The longest period between maintenance would be eight weeks.

Nine of the 47 failures or 19% occurred within one week and 20 of the 47 or 43% within two weeks. It will obviously be very difficult and an imposing maintenance cost to assure compliance.

The difficulty we are now encountering in maintaining leak tightness supports the view that this test is over-stringent, if only for maintenance reasons. The very nature of mobile equipment, light construction and the numerous devices required for operation, fire safety, pressure relief and vapor control all compound the difficulty in controlling vapor leaks.

Unfortunately, we cannot offer a comparison for a failure rate for the 2" and 3" decay in 5 minutes test but the less restrictive test has been approved by the EPA. We respectfully submit that from our experience the proposed test will not only be extremely difficult to comply with over any length of time but that it would be almost impossible to comply with in small delivery vessels.

Again we urge the Department to reconsider and approve the EPA test limits.

(2) (b) A reading equal to or greater than 100 percent of the lower explosive limit (LEL, measured as propane) at 2.5 centimeters from all points on the perimeter of a potential leak source when measured by the method 31 and 33 on file with the Department, or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals; and

Comment:

The above covers testing of delivery vessel by the explosive meter method. We wish to caution that this test is not able to establish the amount of leak. Therefore it is possible that leaks found by this method could be within the limits prescribed for testing vessels. Citations should not be issued on explosive meter test results. Fixit tickets or re-certification verification testing might properly be a result of an explosive meter test.

The department may wish to allow other types of tests which are approved by the Director at a later date.

- (2) (c) Visible liquid leaks during loading or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals.

Comment:

It is recommended that the word "avoidable" be inserted before "visible liquid leaks" above. The EPA's guidance document includes the word avoidable in their recommended rule. We concur.

Example: A new visible leak properly could not be defined as an avoidable leak. Without this change, the operator could be subject to a citation based on the proposed rule.

- (3) The Department may, at any time, monitor a gasoline tank truck, vapor collection system, or vapor control system, by the methods on file with the Department, to confirm continuing compliance with sections (1) or (2) of this rule, except that upon retest a delivery vessel is allowed a pressure change of no more than 500 pascals (2.0 in. of H<sub>2</sub>O) in section (1) (b).

Comment:

Refer to our comment for 340-22-137 - Testing Vapor Transfer Systems. Adoption of the EPA recommended test (pressure change of no more than 3.0 in. of H<sub>2</sub>O in 5 minutes) would make this rule unnecessary.

340-22-153 Petroleum Refinery Leaks

- (3) (g) Copies of all records and reports required by this section shall be retained by the owner or operator for a minimum of four years after the date on which the record was made or the report submitted.

Comment:

A two-years' record retention period should be sufficient for the Department to monitor compliance. Little would be gained by requiring the 4-year period. The two-year period is EPA approval as it agrees with their suggested period in their guidance document. EPA-450/2-79-004 9/79 Pg. 19.

End of Comment

# THE ASPHALT INSTITUTE



Park Plaza West, Suite 322 / 10700 S.W. Beaverton Highway / Beaverton, Oregon 97005 / Telephone (503) 643-4111

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
APR 03 1980

AIR QUALITY CONTROL

April 3, 1980

EAC  
Hearing Section

MAY 21 1980

*PBB 4/3/80*  
Peter B. Bosserman  
Air Quality Division  
Department of Environmental Quality  
P.O. Box 1760  
Portland, Oregon 97207

Dear Pete:

Thank you for your letter of March 12 and follow-up note on March 28 and the opportunity to review the proposed revisions and additions to the VOC rules.

I heartily endorse your proposal to regulate the use of asphalt emulsions on the basis of product specifications rather than on the basis of the kind of aggregate with which it used. The aggregate gradations contained in the EPA guidelines are ambiguous and subject to arbitrary interpretation. Additionally, the selection of the grade of asphalt emulsion for a project is often influenced by the type of processing equipment and the availability of water as much as it is by the type of aggregate being used.

I would appreciate your consideration of some minor changes in the maximum solvent contents which you have proposed. ASTM and AASHTO both allow a 3% maximum solvent content in CRS-1 and CRS-2 emulsions. Variations in the asphalt emulsion materials or manufacturing processes may require the manufacturer to exceed the 2% limit you propose and I would prefer that the limit coincide with the ASTM specification. The ASTM and AASHTO specifications do not permit any solvent in CSS-1 and CSS-1h asphalt emulsion and I would suggest that the

limits on these be eliminated. A suggested wording for Section 340-22-140 (4) is enclosed.

In my letter of November 15, 1979 I requested that SC liquid asphalts be defined as road oils rather than cutback asphalts with a 5% limitation on the distillate as contained in EPA guidelines. I would again like to request your consideration of this modification to the VOC rules. The MC cutback specifications permit 15% to 60% distillate at 500°F. as opposed to 5% for SC road oils. By removing SC road oils from the use limitations governing MC cutbacks, you would be encouraging their use in situations where MC's are currently being used thereby further reducing government agencies' dependence on MC cutbacks. A copy of the MC specifications is enclosed for your reference.

*delay  
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round  
3*

Thank you again, Pete, for inviting my comments on the proposed rules. If you have any questions please give me a call.

Kindest regards,



G. J. Beuker Jr.  
District Engineer

GJB:bas

Enc.

- cc: Irv Howton, Douglas Oil
- Dan Fink, Chevron USA
- Bob Gunn, Chevron USA
- Don Carson, Witco Chemical
- Zeke Zikeli, Shell Oil
- Dave Houck, Union Oil
- Bob Briggs, McCall Oil
- J. F. Pearing, TAI
- D. Davidson, Witco Chemical
- R. Hodgson, Douglas Oil
- W. Kari, Chevron USA
- C. Taylor, Shell Oil

340-22-140

- (4) Asphalt emulsions are permitted for all uses provided they do not exceed the solvent contents for each grade as listed below.

Grades of Emulsion	% Maximum Solvent Content*
CRS-1	3
CRS-2	3
CMS-2	8
CMS-2h	8
CMS-2s	12
CSS-1	3
CSS-1h	3

\*As determined by ASTM distillation Test D-244

Asphalt emulsions which exceed these solvent contents shall be subject to the same limitations of use as cutback asphalts in Section 340-22-140 (2) above.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
APR 7 1980  
AIR QUALITY CONTROL



## Standard Specification for CUTBACK ASPHALT (MEDIUM-CURING TYPE)<sup>1</sup>

This Standard is issued under the fixed designation D 2027; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval.

\* NOTE 1—The footnote in Table 1 was changed editorially in October 1977.

NOTE 2—Table 1 was corrected editorially in January 1978.

NOTE 3—The title and scope were changed editorially in January 1979.

### 1. Scope

1.1 This specification covers cutback petroleum asphalts of the medium-curing type for use in the construction and treatment of pavements.

### 2. Applicable Documents

#### 2.1 ASTM Standards:

- D 5 Test for Penetration of Bituminous Materials<sup>2</sup>
- D 95 Test for Water in Petroleum Products and Bituminous Materials by Distillation<sup>2</sup>
- D 113 Test for Ductility of Bituminous Materials<sup>2</sup>
- D 140 Sampling Bituminous Materials<sup>2</sup>
- D 402 Test for Distillation of Cut-Back Asphaltic (Bituminous) Products<sup>2</sup>
- D 2042 Test for Solubility of Asphalt Materials in Trichloroethylene<sup>2</sup>
- D 2170 Test for Kinematic Viscosity of Asphalts (Bitumens)<sup>2</sup>
- D 3143 Test for Flash Point of Cutback Asphalt with Tag Open-Cup Apparatus<sup>2</sup>

### 3. Properties

3.1 The cutback asphalt shall not foam when heated to application temperature and shall conform to the requirements prescribed in Table 1.

### 4. Test Methods

4.1 The material shall be sampled in accordance with Method D 140, and the properties enumerated in this specification shall be determined in accordance with the following ASTM methods:

4.1.1 *Flash Point (Tag Open-Cup)*—Method D 3143.

4.1.2 *Viscosity, Kinematic*—Method D 2170.

4.1.3 *Distillation*—Method D 402.

NOTE—If a 100-ml graduate does not permit sufficiently close readings to determine conformity to this specification with the desired accuracy, receivers graduated with 0.1-ml divisions shall be used.

4.1.4 *Penetration*—Method D 5.

4.1.5 *Ductility*—Method D 113.

4.1.6 *Solubility in Trichloroethylene*—Method D 2042.

4.1.7 *Water*—Method D 95.

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-4 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.40 on Asphalt Specifications.

Current edition approved April 9, 1976. Published June 1976. Originally published as D 2027 - 63 T. Last previous edition D 2027 - 72.

<sup>2</sup> Annual Book of ASTM Standards, Part 15.

TABLE 1 Requirements for Cutback Asphalt (Medium-Curing Type)

NOTE—If the ductility at 77 F (25 C) is less than 100, the material will be acceptable if its ductility at 60 F (15.5 C) is more than 100.

Designation	MC-30		MC-70		MC-250		MC-800		MC-3000	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Kinematic viscosity at 140°F (60°C), cSt	30	60	70	140	250	500	800	1600	3000	6000
Flash point (Tag open-cup), °F (°C)	100 (38)	...	100 (38)	...	150 (66)	...	150 (66)	...	150 (66)	...
Distillate test:										
Distillate, volume percent of total distillate to 680°F (360°C):										
to 437°F (225°C)	...	25	...	20	...	10	...	...	...	...
to 500°F (260°C)	40	70	20	60	15	55	...	35	...	15
to 600°F (316°C)	75	93	65	90	60	87	45	80	15	75
Residue from distillation to 680°F (360°C), percent volume by difference	50	...	55	...	67	...	75	...	80	...
Tests on residue from distillation:										
Viscosity at 140°F (60°C), P <sup>†</sup>	300	1200	300	1200	300	1200	300	1200	300	1200
Ductility at 77°F (25°C), cm	100	...	100	...	100	...	100	...	100	...
Solubility in trichloroethylene, %	99.0	...	99.0	...	99.0	...	99.0	...	99.0	...
Water, %	...	0.2	...	0.2	...	0.2	...	0.2	...	0.2

\* Instead of viscosity of the residue, the specifying agency, at its option, can specify penetration 100 g: 5 s at 77°F (25°C) of 120 to 250 for Grades MC-30, MC-70, MC-250, MC-800, and MC-3000. However, in no case will both be required.

<sup>†</sup> Editorially corrected.

The American Society for Testing and Materials takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, 1916 Race St., Philadelphia, Pa. 19103, which will schedule a further hearing regarding your comments. Failing satisfaction there, you may appeal to the ASTM Board of Directors.





# THE ASPHALT INSTITUTE

Park Plaza West, Suite 322 / 10700 S.W. Beaverton Highway / Beaverton, Oregon 97005 / Telephone (503) 643-4111

EQC  
Hearing Section

MAY 28 1980

April 23, 1980

PAB:  
Peter B. Bosserman  
Senior Environmental Engineer  
Air Quality Division  
Department of Environmental Quality  
P.O. Box 1760  
Portland, Oregon 97207

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
APR 24 1980  
**AIR QUALITY CONTROL**

Dear Mr. Bosserman:

Earlier this month I provided you with our recommendations for regulating the use of asphalt emulsions in pavement construction and maintenance operations. I would like to supplement those recommendations with information regarding the use of these materials so that the Department and the Environmental Quality Commission may better understand why regulating product characteristics is preferable to regulating by category of use. I would also like to request that these comments be included in the Hearing Record.

As I pointed out in my letter of April 3, the use descriptions contained in the October 4, 1979 memo from Mr. R. G. Rhoads with the Environmental Protection Agency, are ambiguous and subject to arbitrary interpretation. I also pointed out that construction procedures, the type of construction equipment and the availability of water also have a direct bearing on the grade of emulsion selected for any given project.

One of my concerns is that only 4 conditions of use are listed in the EPA recommendation and it is implied that any other applications should be performed with a solvent free emulsion. All grades of asphalt emulsion that are used in Oregon are listed in the proposed wording of the regulation that I supplied to you. All of them contain some small percentage of distillate as determined by

ASTM D-244. To be practical, there is no time of year or condition of use that would permit us to use a solvent free emulsion. Different types and grades of asphalt emulsion have been developed and standardized over the years to accommodate the kinds and gradations of local aggregate and the use of various construction procedures. The EPA is well aware that our industry is constantly trying to develop solvent free emulsions that can be successfully employed under these varying conditions but we have not as yet reached that point.

The specific grade of emulsion selected for a road construction or maintenance project is affected by all of the construction variables mentioned previously and the use of a high or low solvent content grade is dictated by these factors rather than the whim of a designer or contractor. To better understand this a description of the grades and their uses follows.

CRS-1 and CRS-2: The letters designate these two grades as cationic rapid setting emulsions. They are the least stable of the emulsions and are designed to break, set and cure very quickly. They are used primarily for sand and aggregate seal coats on existing paved surfaces that have to be opened to traffic in a short period of time. Generally, one-sized clean aggregates are used. Dusty aggregates are not desirable and wetting of the stockpiles is recommended if excessive dust is present. Regardless of the time of year or cleanliness of the aggregates a CRS grade of emulsion would be used. CRS grades are sometimes used for tack coats -- a light application of emulsion to an existing pavement just prior to being overlaid with a hot or cold asphalt/aggregate mixture. The tack coat acts as a bonding agent between the 2 layers of pavement. The CSS grades described later are more commonly used for this purpose.

CMS-2 and CMS-2h: The letters designate these two grades as cationic medium setting emulsions. They are a little more stable than the CRS grades and are not desirable for sand or chip seals. In Oregon they are used primarily in plant mixing operations with clean open graded aggregates. The resulting mixes are used extensively in the construction of low cost, heavy duty roads in county rural areas and throughout the national forests. It would be impossible to use CRS grades for this type of work. In some instances the CMS grades are used in spray applications where one-sized aggregates are unavailable.

CMS-2s: This is also a medium setting grade of emulsion but the higher percentage of solvent enables it to be used with semi-open and dense graded aggregates. It is an infrequently used grade in Oregon but is sometimes required because of aggregate characteristics containing high dust or the unavailability of water either for washing aggregates or as a mixing aid.

CSS-1 and CSS-1h: The letters designate these two grades as cationic slow setting emulsions. They are extremely stable. They are frequently used in mixing operations with dense graded aggregates. Their stability in the emulsified state permits their use in road mixing on the grade or in central mixing plants. Additional water must be readily available as an aid in mixing and coating under these conditions. CSS grades are also used in the manufacture of slurry seals which function in much the same manner as chip seals but are more commonly used on city streets and parking lots than are chip seals. Because they are easily diluted the CSS grades are also used for fog seals and tack coats. CSS grades are not suitable for mixing with open graded aggregates.

Aggregate characteristics and availability, subgrade characteristics, traffic, time of year, climate, efforts to conserve materials and overall economic factors are involved in the decision of whether to use open graded or dense graded aggregates in the pavement structure. There are advantages to each type depending on the circumstances involved.

Finally, it should be noted that the October 4, 1979 memorandum from EPA permits the states to draft regulations for the use of asphalt emulsions either by use definitions or by defining specific grades of emulsified asphalt. We feel the latter method is much more desirable because the restrictions are clearly defined and not subject to confusion or arbitrary interpretation.

I sincerely hope that the foregoing will provide sufficient justification for regulating asphalt emulsion use by specification rather than specific uses. If further clarification is desired, please let me know.

Yours very truly,



G. J. Beuker Jr.  
District Engineer

GJB:bas

cc: Oregon Marketers



**Chevron U.S.A. Inc.**

P.O. Box 220, Seattle, WA 98111 • Phone (206) 628-5318

Bob B. Wallan  
Division Manager  
Asphalt Division

July 1, 1980

Mr. G. J. Beuker, Jr.  
District Engineer  
The Asphalt Institute  
Park Plaza W., Suite 322  
10700 S.W. Beaverton Highway  
Beaverton, OR 97005



Dear Gus:

This refers to the attached correspondence.

I do not agree with your attempts to have SC's approved for use under Oregon DEQ regulations. You are talking about an isolated case of three dry southern counties which incidently have used very little SC's in the past, to try to build a case for statewide acceptance. If approved, these cutbacks could be used in wet areas of the state and considerable run-off could occur.

You indicate that the heaviest use is on forest service logging roads. U.S. Forest Service directives from Washington D.C. specifically recommend against the use of fuel oils, road oils, etc., for dust palliative.

I feel our efforts regarding Oregon DEQ VOC rules should be aimed at eliminating all cutback type products.

By copy of this letter, I am requesting P. B. Bosserman to include the above comments in the hearing record.

Very truly yours,

*Bob B. Wallan*  
Bob B. Wallan

BBW:cr  
Attachment

cc: ✓ Peter B. Bosserman (w/attachment)  
Senior Environmental Engineer  
Air Quality Division  
Department of Environmental Quality  
P.O. Box 1760  
Portland, OR 97207

RECEIVED  
JUN 25 1980  
ASPHALT

# THE ASPHALT INSTITUTE



Park Plaza West, Suite 322 / 10700 S.W. Beaverton Highway / Beaverton, Oregon 97005 / Telephone (503) 643-4111

June 23, 1980

P.A.A.  
Peter B. Bosserman  
Senior Environmental Engineer  
Air Quality Division  
Department of Environmental Quality  
P.O. Box 1760  
Portland, Oregon 97207

Dear Pete:

In a letter dated November 15, 1979, I proposed a change in the Oregon DEQ VOC Rules which would permit the use of slow curing (SC) cutbacks or road oils under certain conditions. In April of this year I again requested consideration of this proposed change. SC cutbacks are used extensively in some states for priming prepared aggregate bases and in road mixed paving operations. In Oregon, their primary use is for dust palliation during the dry summer months in Josephine, Jackson and Klamath Counties. The heaviest use is on Forest Service logging roads in these counties and I am sure this contributes significantly to a reduction in the particulate count in these areas.

In my files I have a copy of a sample regulation prepared by EPA dated December 19, 1978 Item 2(b)(4) in the example permits the use of cutback asphalt at all times — "Where the user can demonstrate that there are no emissions of organic compounds from the asphalt under conditions of normal use." Another memo from EPA dated March 6, 1979 defines a cutback that meets this requirement as one wherein no more than 5% distillate is evaporated at 500°F as determined by ASTM Test Method D402. Most of the SC cutbacks used in Oregon satisfy this requirement.

I would therefore like to propose an addition to paragraph 340-22-140(2) of Oregon's

VOC Rules as follows:

340-22-140

(2) (d) For all uses if no more than 5% by volume, organic compounds are evaporated at 260°C (500°F) as determined by ASTM Test Method D 402.

I would like to request that these comments be included in the Hearing Record.

Yours very truly,



G. J. Beuker Jr.  
District Engineer

GJB:bas

cc: Oregon Marketers  
Dennis Belsky



U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE  
SEATTLE, WASHINGTON 98101

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 23 1980

AIR QUALITY CONTROL

REPLY TO  
ATTN OF: M/S 625

MAY 21 1980

Mr. E.J. Weathersbee  
Administrator, Air Quality Division  
Oregon State  
Department of Environmental Quality  
P.O. Box 1760  
Portland, OR 97207

ECC  
Hearing Section

MAY 28 1980

RE: Applicability of Alternative Control Systems

Dear Jack:

I appreciate the opportunity before proposal to review your draft rule "Applicability of Alternative Control Systems" (OAK 340-22-108).

Before commenting on the proposal, I would like to clarify several misconceptions regarding EPA's "Bubble Policy" as discussed in Peter Bosserman's letter of April 30, 1980.

1. Comments on EPA's final policy statement, which was published in the Federal Register on December 11, 1979, are inappropriate. Such comments should have been provided during the public comment period on the proposed policy statement which began on January 18, 1979 (44 FR 3/40).
2. The policy statement has nothing to do with "bubble rules" as stated in Bosserman's letter. It does not establish requirements or guidelines for state rules to implement a bubble concept. Instead, it sets forth EPA's policy and criteria for considering source-specific SIP revisions which allow alternative emission reduction options to satisfy SIP emission limitations.
3. Neither EPA's "Bubble Policy" nor staff members are "opponents" to the use of alternative emission reduction options. In fact EPA and Region X staff members are actively encouraging the use of the "Bubble Policy". We have, however, set some conditions on use of the Policy in order to ensure that the requirements and goals of the Clean Air Act are not comprised by inappropriate use of the Policy.

In regard to the draft rule, we would not be able to approve it as a SIP revision because it is inconsistent on almost all points with EPA's "Bubble Policy". Furthermore, a source-specific SIP revision submitted pursuant to this rule would also likely be unapprovable under the Policy.

Finally, you may want to reexamine the need for this rule. It is our impression that DEQ has adequate provisions within its existing rules to utilize the bubble concept. The State's rules for Variances, Emission Limitations on a Plant Site Basis, and Air Contaminant Discharge Permits together would allow DEQ, consistent with the "Bubble Policy", to authorize alternative emission control systems for a specific source which could then be proposed as a SIP revision.

If you have any questions on this please call David Bray at (206) 442-1125.

Sincerely,



Richard R. Thiel, P.E., Chief  
Air Programs Branch

cc: Peter Bosserman, DEQ ←





# Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

(503) 229-6278

April 30, 1980

- Environmental Protection Agency  
Region X  
Attn: David Bray H/S 625  
1200 Sixth Avenue  
Seattle, Washington 98101

Re: Oregon Bubble Rule

Gentlemen:

Please review and comment on the Oregon proposed rule "Applicability of Alternative Control Systems", OAR 340-22-108, page 13 of the attached VOC rules.

Under separate cover we are sending you comments on EPA's policy statement on bubble rules, December 11, 1979, Federal Register.

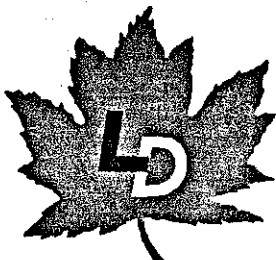
Your approval of OAR 340-22-108, March 6, 1980 draft, by May 21, 1980, would contribute to swift passage of Oregon's bubble rule on June 20, 1980. Several industries are counting on 340-22-108's passage, and we have identified EPA's policy statement and staff members as the only potential opponents of this rule.

Sincerely,

Peter B. Bosserman  
Sr. Environmental Engineer  
Program Planning and Development Section  
Air Quality Division

PBB:h

cc: James Herlihy, EPA-000



# LAURENCE-DAVID, INC.

POST OFFICE BOX 2484

EUGENE, OREGON 97402

April 22, 1980

EGG  
Hearing Section

MAY 22 1980

Department of Environmental Quality  
Attn: Mr. Peter Bosserman  
522 S.W. 5th Avenue  
Portland OR 97207

Dear Mr. Bosserman:

In regards to the proposed V.O.C. Regulations, Laurence-David, Inc. requests the following change in V.O.C. calculation:

"Volatile organic compounds in aqueous coatings should be calculated directly from the coating's formulation as applied, in pounds per gallon or grams per liter."

This calculation eliminates "excluding water" used in the original March 6, 1980 draft, section 340-22-170-(1) on page 30.

As a coatings manufacturer and formulator, I feel this new method of calculation is a more realistic approach to limiting V.O.C. emissions.

Sincerely yours,

Tim Ayers  
Head Chemist  
Laurence-David, Inc.

TA:db

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
APR 24 1980  
**AIR QUALITY CONTROL**

ASHLAND RETAIL STORE  
Phone 482-2143  
MEDFORD BULK PETROLEUM PLANT  
Phone 773-8464  
MEDFORD RETAIL STORE  
Phone 772-4730

CENTRAL POINT GRAIN ELEVATOR  
Phone 664-2433  
CENTRAL POINT FERTILIZER PLANT  
Phone 664-3993



# GRANGE COOPERATIVE SUPPLY ASSN.

Phone 664-1261 or 773-4022  
P. O. BOX 3637 CENTRAL POINT, OREGON 97502

May 20, 1980

ECC  
Hearing Section

MAY 23 1980

Mr. Peter Bosserman  
Department of Environmental Quality  
Air Quality Division  
Box 1760  
Portland, OR 97207

Dear Mr. Bosserman:

This is written to object to the proposed revisions and additions to the Oregon Administrative Rules regulating volatile organic compounds.

We are particularly concerned about the proposals to require annual testing of gasoline delivery trucks and the installation of vapor return fittings on gasoline stations selling over 10,000 gallon per month.

Many medium-sized stations have small underground tanks of 1,000 to 5,000 gallon and receive their gasoline deliveries from bulk plants. Although we have no exact figures, we know the cost of installing tanks large enough to receive deliveries direct from terminals would be prohibitive. Also, the cost of installing the vapor return fittings on existing tanks, small delivery trucks, and bulk loading racks would be excessive. Profit margins on the sale of gasoline are being controlled by the Federal government and do not leave room for much capital expenditure.

The current proposals are not economically feasible for small gasoline station operators. We urge DEQ and EPA to abandon these proposals.

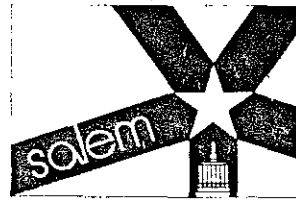
Very truly yours,

*James E. Hudson*  
James E. Hudson,  
General Manager

JEH/bp

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 23 1980  
**AIR QUALITY CONTROL**

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 23 1980  
AIR QUALITY CONTROL



CITY  
OF SALEM,  
OREGON  
City Hall / 555 Liberty St. S.E.  
Zip Code 97301

EQC  
Hearing Section

MAY 22 1980

**RECEIVED**  
MAY 7 1980  
MID WILLAMETTE VALLEY  
COUNCIL OF GOVERNMENTS

May 5, 1980

Ms. Sue Hollis  
Clearinghouse Coordinator  
220 High St. NE - Room 400  
Salem, OR 97301

Dear Sue:

This letter is to inform you of the City of Salem's position regarding the Oregon Environmental Quality Commission's (EQC) proposed revision of Volatile Organic Compound (VOC) Rules and Permit Rule (340-22 and 340-20-155).

Revision of Rule 340-22-140, Cutback and Emulsified Asphalt, is considered to have a detrimental effect on city government. Concerning Rule 340-22-140, the City disagrees with the Commission's apparent position that emulsified asphalt can generally replace cutback asphalt in all applications. Some valid requirements for cutback asphalt remain. Sub-paragraphs (1) and (2) are unnecessarily restrictive in the use of slow cure (SC) and medium cure (MC) cutback asphalt. Severely limiting the calendar period and atmospheric conditions under which SC and MC can be used will cause a significant increase in the cost of construction projects where emulsified asphalt is not the best alternative.

Thank you for the opportunity to review the proposed regulation.

Sincerely,

*R. W. Hanley*  
Ralph W. Hanley  
City Manager

RWH:ee

# COOS-CURRY COUNCIL OF GOVERNMENTS

P.O. BOX 647  
NORTH BEND, OREGON 97459  
756-2563

ROBERT PIERCE, Chairman  
BILL TANKERSLEY, Vice-Chairman  
C. W. HECKARD, Treasurer  
SANDRA DIEDRICH, Director

May 20, 1980

Department of Environmental Quality  
Air Quality Division  
P.O. Box 1760  
Portland, Or. 97207

EQC  
Hearing Section

Attention: Peter B. Bosserman

MAY 27 1980

Re: D.E.Q.  
Revision of Volatile Organic Compounds Regulations  
and the Permit Fee Schedule

Dear Mr. Bosserman:

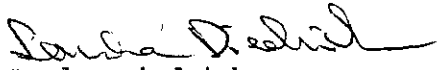
In compliance with the regional clearinghouse procedures as specified in the Office of Management and Budget Circular A-95, as revised, the Coos-Curry Council of Governments on May 8, 1980, reviewed the above revisions submitted by the Department of Environmental Quality.

In reviewing the proposed revisions, the Council noted these revisions would correct 11 deficiencies noted by the EPA and that these changes will primarily impact those areas that exceed the Air Quality Standards for Ozone. The Council further noted DEQ is proposing additional Volatile Organic Compounds rules that generally follow the model rules provided by the EPA.

There were no duplications or conflicting projects noted in the region and it was found that the proposed project is not in conflict with any appropriate areawide or local plan. The Council, therefore, unanimously approved the following comment only: Since Coos and Curry Counties currently maintain a high standard of air quality due to the rapid air exchanges associated with the coastal winds, it appears that any violation of VOC standards are highly unlikely. The rules may only add necessary costs and create an undue burden on local industries. Coos and Curry Counties should be exempt from any Round II rules.

Should you have any questions regarding this action by the Council, please do not hesitate to contact us.

Sincerely,

  
Sandra Diedrich  
Director

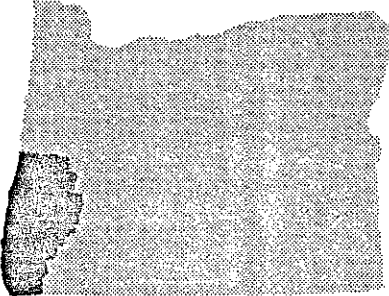
SD/tam  
cc: State Clearinghouse

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 27 1980

MEMBER AGENCIES  
COOS COUNTY  
CURRY COUNTY  
BANDON  
BROOKINGS  
COOS BAY  
COQUILLE  
EASTSIDE  
GOLD BEACH  
LAKESIDE  
MYRTLE POINT  
NORTH BEND  
PORT ORFORD  
POWERS  
PORT OF BANDON  
PORT OF COOS BAY  
PORT OF GOLD BEACH  
PORT OF BROOKINGS  
PORT OF PORT ORFORD  
COOS BAY-NORTH BEND WATER BOARD  
LAKESIDE WATER DISTRICT  
LOWER BAY WATER DISTRICT  
COOS SOIL AND WATER CONSERVATION DISTRICT

COOS BAY SCHOOL DISTRICT  
COQUILLE SCHOOL DISTRICT  
BANDON SCHOOL DISTRICT  
BROOKINGS-HARBOR SCHOOL DISTRICT  
GOLD BEACH HIGH SCHOOL DISTRICT  
MYRTLE POINT SCHOOL DISTRICT  
SOUTHWESTERN OREGON COMMUNITY COLLEGE  
NORTH BEND SCHOOL DISTRICT  
POWERS SCHOOL DISTRICT  
CHARLESTON SANITARY DISTRICT



LANE REGIONAL

AIR POLLUTION AUTHORITY



(503) 686-7618

16 Oakway Mall, Eugene, Oregon 97401

Donald R. Arkell  
~~XXXXXXXXXXXX~~ Program Director

Management Services Div.  
Dept. of Environmental Quality

RECEIVED  
MAY 23 1980

May 22, 1980

Joe Richards, Chairman  
Environmental Quality Commission  
522 S.W. 5th Ave.  
Portland, OR

Re: Proposed Statewide VOC Rules

Dear Mr. Richards;

LRAPA staff has reviewed the proposed VOC rules and has evaluated potential affected sources in Lane County. These include a bulk gasoline storage terminal, flatwood coating operations, and liquid storage facilities. Final determination of which sources would be affected by statewide rules has not been made, as yet, but it is clear that LRAPA has the resources to implement similar control regulations in Lane County.

While we recognize the need for VOC/RACT rules in ozone non-attainment areas, we question the rationale behind the need for such rules, applied statewide: that is, to allow new or expanded sources to locate in attainment areas without offset. The cost benefit analysis to support this concept should include an estimate of savings which would accrue to new industries, vs. costs of compliance for existing industries. There is also question regarding the wisdom of allowing major new sources to locate in the state until there is adequate understanding of the ultimate effect on air quality.

LRAPA is continuing to monitor ozone levels and maintains emissions inventories of VOC from major point sources. If a rule is adopted, or if it is determined that the need for additional VOC control exists in Lane County, LRAPA is prepared to implement rules of its own.

Your consideration of these comments is appreciated. If the Commission or DEQ staff has questions, please contact this office.

Sincerely,

Donald R. Arkell  
Program Director

DRA/mjd



**NORRIS PAINT & VARNISH CO., INC.**  
 1675 COMMERCIAL STREET N.E. - SALEM, OREGON 97308  
 POST OFFICE BOX 2023 TEL. (503) 364-2277

May 29, 1980

State of Oregon  
 DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
 MAY 29 1980

**AIR QUALITY CONTROL**

To: Mr. Peter Bosserman  
 Department of Environmental Quality

Subject: Clarification of the status of traffic paints in the  
 State of Oregon

A fact sheet for developing an exemption for this type of coating based on the following reasons.

1. Exemption on basis of non point-source emission.
2. Exemption on basis of state-of-art vs. requirements of various state highway departments.
3. Exemption on basis of need to educate and equip state highway department for application of low VOC coatings.

Traffic Paint Performance requirements:

1. Dry time - dry to <u>no track</u> -	OR	WA	IDAHO	CA
Min -	6.5	-	-	1-4
Sec	-	15-25	20-45	-
2. Millage applied - 10-15 mils for 4 in. wide stripe = approx. 17 gal./mi. average @ volatile content of 30% by wt. 58% by vol.				
3. Temperature of application (at gun)	OR	WA	IDAHO	CA
	120°F.	180°F.	160°F.	-
4. Gallonage of traffic paints applied by states	OR	WA	IDAHO	CA
	1979 - 300	200	135	450
	Shown in thousands			
5. VOC in lbs./gal	1980	3-3.7	3.7	3.6 3.5

Current traffic paint specifications are mostly based on performance specifications rather than ingredient type. Dry requirements demand fast solvent evaporation to prevent tying up traffic on busy

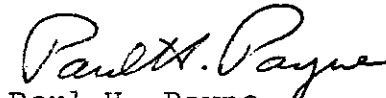
Mr. Peter Bosserman  
Page 2.

thoroughfares. Some possibilities exist for lower VOC developments in this type of coating.

- a. The use of more Methylene Chloride solvent now exempted under 340-22-170 Model Rule.
- b. Less heat applied to coating at application by use of cold dry type.
- c. Water-borne coatings uses in certain areas might be permitted, however, there are serious limitations to water.
- d. Use of 100% solids hot-melt coatings might be permitted in certain areas.

All the above will result in higher costs to state highway departments both due to materials and time required for application, plus additional equipment.

Norris Paint & Varnish Co., Inc.

  
Paul H. Payne  
Technical Director





Simpson Timber Company

Chemicals Division 2301 N. COLUMBIA BLVD., P.O. BOX 17307  
PORTLAND, OREGON 97217 (503) 289-1111

SIMPSON TIMBER COMPANY TESTIMONY  
CONCERNING DEQ PROPOSED REVISIONS AND ADDITIONS TO  
OREGON'S VOLATILE ORGANIC COMPOUND REGULATIONS

The following testimony will briefly focus on areas of the proposed amendments to Oregon's VOC Regulations which Simpson feels should be given additional consideration.

Proposed Amendment to OAR 340-22-104

The amendment to OAR 340-22-104 essentially states that all new or modified sources with allowable VOC emission increases over 100 TPY, statewide, shall meet LAER and that all existing sources, statewide, which emit more than 100 TPY of VOC's shall comply with Sections 110 to 220 (RACT). Adoption of the proposed amendment to Section 104 would equate the entire state to a non-attainment area when in fact the majority of the state is in attainment. Part C, Subchapter I, of the Clean Air Act and the subsequent generation of PDS regulations by the Environmental Protection Agency specifically provide for an incremental increase in emissions to allow for economic growth in areas that can show compliance with the Federal Standards. A regulation such as the one proposed is clearly beyond the intent of the Clean Air Act. One must question the equity in that the entire state would be paying the price of "no growth" which is what this amendment implies. It is, therefore, suggested that the proposed amendment to Section 104 be deleted in its entirety and the language in the rule we presently have be retained.

OAR 340-22-102 (35) - Definition of volatile organic compounds and compounds exempt from regulation.

Simpson believes there is sound reason to consider methanol as a photochemically inactive substance similar to other organic compounds currently considered inactive and exempt by the United States Environmental Protection Agency. Smog chamber data by Dimitriadis (\*) has indicated a very low rate of ozone formation for methanol at a fixed Hydrocarbon/NO<sub>x</sub> ratio, as compared to other hydrocarbons. Preliminary mathematical modeling based on equilibrium rates for the reaction  $HC + OH \cdot \rightarrow$  Products has indicated that methanol may have a maximum possible net ozone formation rate of less than 1 ppm O<sub>3</sub>/ppm methanol; a figure at or near the theoretical level for ethane, a compound already excluded from regulation due to photochemical inactivity.

Control of oxidant formation requires a precise definition of which compounds significantly contribute to ozone formation. Specifically, information regarding the means of identifying reactive hydrocarbons from those with virtually no impact on the oxidant problem is required. Without such definitions, costly, inflationary controls will be imposed on industry in an effort to regulate compounds which have only a marginal, if any, impact on air quality. All current indications show that methanol is of such low activity as to fall into this category. It is recommended that methanol be exempted from VOC regulations on the basis that 1) it is of low photochemical activity and 2) cost effective control is questionable.

In conclusion, it is suggested that the proposed amendment to OAR 340-22-104 be deleted and the language in the present rule be retained. Also, that methanol be re-evaluated for exemption due to its apparent low photochemical activity in the formation of ozone. Finally, the observation should be made that the end of the line is rapidly approaching in what industry can economically accomplish in reducing VOC emissions in the State of Oregon. It has been stated that only 10% of the VOC's emitted in this state originate from industrial and painting facilities yet these are the sources being severely regulated. One would think it more prudent if regulatory energies were concentrated where the greatest returns could be realized.

We appreciate the opportunity to comment on the Proposed Amendments to the Oregon Volatile Organic Compound Regulations and would hope due consideration be given to suggested modifications.

SIMPSON TIMBER COMPANY



Gerald G. Palmer  
Environmental Specialist

\*Rule #66 - Rules and Regulations Air Pollution Control District  
County of Los Angeles, Los Angeles, California 1971

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
JUN 16 1980

6/13/80

Pete Bosserman:

AIR QUALITY CONTROL

We would like to set up a meeting with you to discuss our findings concerning methanol and its low photochemical activity.



Jerry Palmer



Chemical Coatings/Resins

# Reliance Universal Inc.

12336

97309

1660 Cross Street S.E., P.O. Box 12336, Salem, Oregon 97309 • Phone 503-585-2700

June 10, 1980

Mr. Peter B. Bosserman  
Senior Environmental Engineer  
Air Quality Division  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
State of Oregon  
525 SW 5th, 4th Floor  
Portland, OR 97207

Dear Peter:

This letter is written to be added to the record subsequent to the public hearing May 21, 1980 on the DEQ Volatile Organic Compound Rules.

We have three concerns we urge you to consider.

A. 340-22-104 (1) and (2) Statewide Rules

The application of the Rules to 100-ton-per-year sources outside the non-attainment areas would be needlessly burdensome to manufacturers in these areas, e.g. Eugene-Springfield and Roseburg. We feel that the intent of the Clean Air Act is to bring substandard areas to a predetermined level of quality. We do not think the purpose is to improve areas which already meet that standard.

Further, it is not likely these areas will become non-attainment without the application of controls because of the generally expected state-wide reduction of VOC emissions in the future.

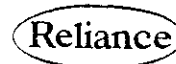
B. 340-22-107 Compliance Schedule

Most of the coatings applicators will probably choose reformulation of their coatings as the most practical control method. The compliance schedule as it is written completely ignores this possibility. "Place Purchase Orders", "Begin Construction", "Complete Construction" do not give such coatings applicators any guidance to the calendar you will use to judge their conformance. For example, you surely do not intend them to place purchase orders by November 1, 1981 for coatings to be delivered before December 1, 1982.

This paragraph is, we feel, an example of the lack of recognition in these rules that reformulation is a "control device" and as such, should be included in the 340-22-102 Definitions and 340-22-106 Exemptions.

*OUR GUARANTEE: "Since methods and conditions of application and use are beyond our control, all merchandise is sold without warranty of suitability or fitness for the customer's particular purpose and subject to the condition that our liability as to any product is in any event limited to the return of the purchase price.*

*"It is expressly understood that any technical advice furnished by us is given gratis and we assume no obligation or liability for the advice given or results obtained, all such advice being given and accepted at the customer's risk. Further, by mention of equipment or products we do not imply an unqualified recommendation as there are undoubtedly others of similar types on the market which may be equally or better suited for the purpose."*



Chemical Coatings/Resins

12336

97309

1660 Cross Street S.E., P.O. Box 12336, Salem, Oregon 97309 • Phone 503-585-2700

Page - 2

C. 340-22-200 (2) Flat Wood Coating

We agree with your exclusion of exterior siding, tileboard, particle-board furniture stock, and surface laminated board. However, these applications should also be included in 340-22-170 (2) (a) Exceptions as a matter of clarification.

In addition we would call your attention to, and re-emphasize, two of the points we made in our letter of February 25, 1980. (The numbers refer to those in our letter)

- 1.a. Definition (16) should be "force dried coating" so as not to restrict the application of heat to warm air.
5. We still believe that calculating VOC content on a "per volume of coating excluding water " basis provides a false expression of the true contribution of solvent vapor to the environment.

Very truly yours,

J. M. Hatfield  
Technical Director

JMH/ds

cc: Paul Leary  
V. Jacquet  
Steve Norton  
Mitch Steffensen, Georgia-Pacific, Eugene

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
JUN 16 1980

AIR QUALITY CONTROL

OUR GUARANTEE: "Since methods and conditions of application and use are beyond our control, all merchandise is sold without warranty of suitability or fitness for the customer's particular purpose and subject to the condition that our liability as to any product is in any event limited to the return of the purchase price.

"It is expressly understood that any technical advice furnished by us is given gratis and we assume no obligation or liability for the advice given or results obtained, all such advice being given and accepted at the customer's risk. Further, by mention of equipment or products we do not imply an unqualified recommendation as there are undoubtedly others of similar types on the market which may be equally or better suited for the purpose."



CrownZellerbach  
Environmental Services

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
JUN 18 1980

EQC  
Hearing Section

AIR QUALITY CONTROL

JUN 17 1980

June 16, 1980

Ms. Rhea Kessler, Hearing Officer  
Department of Environmental Quality  
522 S. W. 5th Avenue  
P. O. Box 1760  
Portland, Oregon 97207

Subject: VOC Rules

Dear Ms. Kessler:

Attached are additional comments on Oregon's proposed VOC Rules which were subject to a hearing on May 21, 1980. It was our understanding that the record would remain open for 30 days for comments on the DEQ staff rule changes which are being considered.

Very truly yours,

JAMES E. WALTHER/jd

Supervisor,  
Air & Noise Programs

Attachment

Additional Comments on Volatile Organic  
Compound Rules and Permit Fees (340-20-22)

Dr. James E. Walther  
Supervisor of Air Programs  
Crown Zellerbach Corporation  
Camas, Washington

At the May 21, 1980 hearing on Volatile Organic Compound Rules, the Department Staff of the DEQ entered into the hearing record, possible changes in Rule 340-22-108 which would affect compliance dates and the alternate control rule applicability to the Portland plant of Crown Zellerbach Corporation. The comment period was extended by the hearing officer for 30 days on this rule.

Proposed Rule 340-22-108(3) would allow the alternate control rule to apply to only sources within each EPA control technology guideline (CTG). We believe that the EPA policy statement can allow for a deviation from this concept on a case by case basis as noted in the concluding summary paragraph of the statement: "EPA will consider additional comment on these same issues in individual proceedings" (F.R. 44, p. 71787).

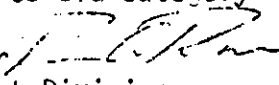
Therefore, the Oregon rule would be more restrictive than required to meet the policy.

If such a change in the Oregon rule were adopted, an additional rule should be considered to provide for an extended compliance schedule to allow for the development of low solvent inks. Such a proposed rule was outlined in the EPA document, "Guidance to the State and Local Agencies in Preparing Regulations to Control Volatile Organic Compounds", (EPA-450/2-79-004). The addition of the rule was suggested in the Richard Rhoads memorandum of April 25, 1980. The references are attached.

We believe that a plant wide bubble rule can be adopted, subject to EPA approval, which will result in more than equivalent early emission reductions. If controls by individual CTG sources are required, additional energy costs and hydrocarbon resources will be required.

APR 25 1980

JECT Compliance Schedules for Low Solvent Technology  
Programs for the Graphic Arts CTG Category

FROM: Richard G. Rhoads, Director   
Control Programs Development Division

(MD-15)

TO: Director, Air and Hazardous Materials Division, Regions I-X

Segments of the graphic arts industry affected by the Group II CTGs have requested additional time to comply with the forthcoming State VOC regulations through the development of low solvent inks programs. Meetings with the flexible packaging representatives and suppliers have indicated that low solvent inks look very promising for this segment of the industry and that the completed programs will result in VOC reductions beyond that achievable by add-on controls. However, for many plants these technology forcing programs will require compliance schedules that extend beyond 1982.

For the graphic arts category, there are two ways that extensions can be granted. The States can address the low solvent programs through a regulation that allows for alternative compliance schedules or through a categorical compliance schedule regulation specifically for a low solvent technology program. In either case the extended compliance programs must demonstrate that every affected source will meet the requirements as discussed below.

1. Document the economic burden of RACT add-on controls.
2. Identify a specific alternative compliance plan and outline an enforceable compliance schedule.
3. Demonstrate substantial VOC reductions early in the program, thus showing early commitments by the company to ensure expeditious implementation.
4. Show a greater reduction in VOC emissions than would otherwise have occurred as a tradeoff for being allowed more time to achieve compliance through a low solvent ink development program.
5. Contain a commitment to install add-on control equipment by a specified date if the low solvent development program fails by a specified date.

If a State adopts a regulation for the control of VOC for the graphic arts category that requires documentation for all affected sources in accordance with the criteria above, EPA would regard it as being expeditious and would propose such a regulation for approval. Adoption of such a regulation cannot be a basis for a waiver of any requirement of the Clean Air Act. Each urban area which has been

granted an extension beyond 1982 must demonstrate attainment of the ozone ambient air quality standard by the statutory deadline and must in the interim demonstrate reasonable further progress toward achieving the standard. States with 1982 attainment dates can grant extensions beyond 1982 only if the SIP continues to demonstrate attainment by 1982 after the growth increment is adjusted for the increased emissions.

Attached is a low solvent compliance plan submitted to the State of Michigan. This plan has been approved by the State and Region V has concurred that it contains the key ingredients for an approvable alternative compliance program. OAQPS has also reviewed the plan and deemed it acceptable to serve as an example plan.

Please call Tom Williams, FTS 629-5226, for additional information or additional copies of the plan.

Attachment

cc: Ed Tuerk  
Ed Reich, DSSE  
Mary Ann Muirhead, OGC  
Air Branch Chief, Regions I-X  
VOC contact, Regions I-X  
R. C. Campbell



§XX.9640 Compliance Schedules.

(a) The owner or operator of a packaging rotogravure, publication rotogravure or flexographic printing facility subject to this regulation must meet the increments of progress in the following schedules.

(1) For process equipment changes, and add-on control devices, including incineration with heat recovery:

(i) Submit final plans for the emission control system or process equipment, or both, before October 15, 1980;

(ii) Award contracts or purchase orders for the emission control system or process equipment, or both, before December 15, 1980;

(iii) Initiate onsite construction or installation of the emission control or process equipment, or both, before June 1, 1981;

(iv) Complete onsite construction or installation of the emission control or process equipment, or both, before June 1, 1982; and,

(v) Achieve final compliance, determined in accordance with §XX.9650, before July 1, 1982.

(2) For incineration equipment without heat recovery or process modifications not requiring purchase orders:

(i) Submit final plans for the emission control system or process modifications, or both, before September 15, 1980;

(ii) Award contracts for process modifications or for incineration equipment, or both, before November 1, 1980;

(iii) Initiate onsite construction or installation of process modifications or emission control equipment, or both, before January 15, 1981;

(iv) Complete onsite construction or installation of process modifications or incineration equipment, or both, before May 15, 1981; and

(v) Achieve final compliance, determined in accordance with §XX.9650, before July 1, 1981.

(3) For low solvent technology: (see discussion)

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: J. F. Kowalczyk

DATE: June 19, 1980

FROM: P. B. Bosserman *P.B. 6/30/80*

cc: NWCO  
cc: WOGA

SUBJECT: June 18, 1980 Meeting with Gasoline Terminal Managers

From 11:30 a.m. to 2:30 p.m. on June 18, 1980, I met with Western Oil and Gas Association's committee about the VOC rules. The following topics were discussed.

Slotted Gage Wells

Chevron's C. P. Lattanzi presented a copy of their company's May 8, 1979, Memorandum, requiring air-pacs and double crews to hand gauge floating roofs' seals or depths. Page 27 of their Marketing Operating Manual, attached, also describes the safety hazards. They presented Chevron drawing GA-D99764-0, 8" Slotted Gage Well for Floating Roof Tanks, and showed me a slotted gage well on a tank. It allows one man to gage the tank from the top of the outer wall, and to take liquid samples from various depths without descending to the tank floating roof.

A slotted gage well violates 340-22-160 (3), adopted June 8, 1979, and effective April 1, 1981. The slotted gage well cannot be closed; it presents 50 square inches of gasoline surface open to the outside air. Rule 340-22-160 (4) (c) allows only 150 sq. in. of the measured surface for a 150' diameter tank, around the floating roof edge seals.

SCAQMD (Los Angeles) rule 463 does not mention slotted gage wells, and therefore forbids them.

BAAPCD (San Francisco) regulation 3, #3102.4 (1) (a) (i) and (2) require gas tight covers, and thus forbid slotted gage wells.

Chevron agreed to two mitigating measures: first, put a cap or cover on the top of the gage well (Texaco already does this); second, no slots within 30" of the top of the tank (would keep some wind out of the well).

I accepted their data for the VOC rule hearing record. The slotted gage is an additional VOC loss, quite minimal, that lessens Chevron's man-power requirements and makes manual tank gaging safe.

I will present a request to Chevron to submit a Notice of Construction

for erection of slotted gage wells, and for them to quantify VOC losses from them (with M. Wipert's 229-5509 help).

At this time, I would favor the loss of more VOC to make the manual gaging job safe.

#### Responsibility for Vapor Balance

The main purpose for the meeting was the spread out responsibility for vapor balance. The terminals, especially GATX (who don't even own the product), object to being held responsible for truck drivers who pick up a load of gasoline and decline to hook up the vapor return hose (and no one from the terminal is on duty at the rack). The Department favors holding the terminal as equally responsible for the truck driver's failure to hook up the hose.

The language in the present VOC rules was not clear to industry. DEQ reviewed it internally and passed out our stringent version May 21, 1980, after review by Ray Underwood, our Attorney General.

Michael J. Dougherty, Union Oil, Los Angeles staff, pointed out that the truck drivers and truck owners were responsible for the terminal emitting no more than 80 mg of VOC per liter of gasoline loaded in DEQ's May 21, version. Hal Soloman, Chevron, Seattle, pointed out that 340-22-110 made the service station owner responsible for vapor balance, when, in fact, the truck driver handles the whole matter, except for buying the fittings to the underground tank. The WOGA members wanted 340-22-137 (1) and (2) language changed, so that the principal parties were held legally responsible.

Del Fogelquist, WOGA, Seattle office, presented Washington State's Chapter 173-490, where on page 23, WAC 173-490-202 specifically defines responsibilities. All industry persons present said they liked the way Washington State handled responsibility for vapor balance in their rules. I specifically cross-examined Letson of GATX, who has a ledger system for recording gasoline transfers, as to whether he could observe a Washington State-style rule; he said he would.

I then indicated that I would re-write the Oregon VOC rules 340-22-110 to -137 to be like the Washington State Rules, except that "emergencies" in WAC 173-490-202 (2) (b) would be expressed as "malfunctions per 340-21-075". This re-write would be routed thru DEQ supervision and staff for approval and comment before being published back to WOGA.

#### STATEWIDE RULE

The committee wanted to know where the statewide rule was. I said the staff had met with AOI on Tuesday, June 17, 1980, and had agreed to seek the Environmental Quality Commission's permission to refer the statewide rule to AOI for 90 days study, while going ahead and adopting the other VOC rules.

Exemption Point

The committee said Washington State had won a 200,000 gal/yr exemption point for service station from EPA. Would Oregon follow? I reviewed the matter, but indicated that for terminal delivered gasoline, I favored universal vapor balance.

VOC Hearings Record

The Voc hearings record officially closed 30 days after the May 21, 1980, hearing. Since this WOGA meeting occurred before that deadline, I said I would enter the above "meeting minutes" into that record.

Gasoline Barge Loading

I passed out a current computation on gasoline barge loading emissions and asked for comment. Union's Dougherty said he would respond.

Attachments: Chevron Slotted Gage Well; WAC; List of Attendees

PB:i

AI160

MINUTES OF MEETING  
OREGON TERMINAL OPERATIONS AD HOC COMMITTEE  
WESTERN OIL AND GAS ASSOCIATION

Chevron Conference Room  
Portland, Oregon

June 18, 1980  
1:30 p.m.

ATTENDANCE

Members Present

J. D. Hartup, Chairman	Chevron
M. J. Dougherty	Union
N. P. Lesh	Time
D. H. Rueppel	Texaco
D. J. Fogelquist, Secretary	WOGA

Members Absent

B. L. Dougan	Shell
Bernard Fisher	Douglas
W. W. Lee	Atlantic Richfield
D. H. Mack	Texaco
R. A. Nastrom	Mobil
Richard Ogar	Atlantic Richfield
R. J. Wark	Texaco

Others

P. B. Bosserman	DEQ
James Fletcher (for Dougan)	Shell
Don Letson	GATX
H. R. Solomon	Chevron

✓  
Mr. Bosserman -- *6/24/80*

John Hartup requested I send you a copy of the 6/18 roster. I have enclosed the top portion of a "draft" of those 6/18 Minutes.

vivian snyder/WOGA/Seattle

6/20/80

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
JUN 23 1980  
**AIR QUALITY CONTROL**

FIRE PROTECTION MANUAL

FIRE PREVENTION THROUGH OPERATION

Gaging and Sampling Tanks

Where surface turbulence is produced in a body of liquid, as by over-shot filling, high-velocity submerged fill lines, jet or propeller-type tank mixers, large static charges may build up on the surface of the liquid. (See note on page 120-8.) Such surface charges may be discharged, with an accompanying spark, when the bob on the end of a gage tape or a sample bottle holder reaches the liquid surface.

\*

Tanks in which there is any likelihood of a flammable mixture existing at or near the oil surface should accordingly not be gaged with a tape until turbulence has subsided, unless equipped with a slotted gage well bonded to the tank shell—which will insure that liquid within the gage well is protected against the formation of static charges. Similar precautions should be exercised with sampling procedures.

\*

Natural fiber ropes or metallic chains should be used on sample bottle holders, thermometers, etc. Tests have shown that when synthetic (such as nylon and polyethylene) ropes rapidly slip through gloved hands for appreciable distances, such as into large tanks, and insulated person may accumulate a hazardous electrostatic charge.

Steam

Release of steam into free space, with accompanying condensation, can generate large static charges. Thus, steam leaks can produce electrification of insulated bodies in the path of the jet. A charge of this character can cause a spark which may ignite any flammable vapor present in ignitable concentration. The nozzle of the steam line should be bonded to the vessel, and to all conductive objects in the path of the steam jet.

Spray Painting

While the application of paint and other finishes by the spray method may generate small charges of static electricity, actual experience indicates that the hazard is not significant where the common type of air spray equipment is used.

SANDBLASTING

Sandblasting may develop electrostatic charges. These charges will accumulate on the sandblasting nozzle and hose and may result in a spark discharge between the nozzle, hose, or hose couplings and a grounded, conducting body. This electrostatic hazard can be safely controlled by:

1. Bonding the nozzle to the work metal; and
2. Keeping the hose away from areas where ignitable vapor-air mixtures may exist.

Bonding the nozzle to the metal being sandblasted will provide a path whereby opposite charges can safely reunite and eliminate static shocks to operators of the equipment.

Heating of Metal

The abrasive effect of sandblasting will tend to increase metal temperature at the point of impingement, but experience indicates the maximum temperature reached is well below the ignition temperature of hydrocarbon vapor.

Friction Sparks

The mechanical sparks produced in sandblasting operations have not proved to be an ignition source for petroleum vapor-air mixtures.

State of Oregon  
 DEPARTMENT OF ENVIRONMENTAL QUALITY  
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Memorandum

May 1, 1979

BELOW REINFORCES NECESSITY OF  
 SLOTTED GAUGE WELL INSTALLATIONS  
 FOR F. R. TANKS.

Seattle, Washington  
 May 8, 1979

Date	Initial

State of Oregon  
 DEPARTMENT OF ENVIRONMENTAL QUALITY

**RECEIVED**  
 JUN 18 1980

FLOATING ROOF TANKS  
 CONFINED SPACE

**AIR QUALITY CONTROL**

TERMINAL MANAGERS

Normally, one would not consider a floating roof as a confined space. However, the various codes and Company regulations are very clear in this area. The definition of a confined space is as follows:

"A confined space is an area into which employees do not normally enter and may -- because of configuration or use -- contain flammable, toxic or oxygen deficient atmospheres: examples may include but are not limited to tanks, vessels, boilers, sumps, cellars, manholes, tank cars, tank trucks, tank ribbon mixers, utility line ditches and similar structures surrounded by confining surfaces so as to permit the accumulation of dangerous gases or vapors."

This clearly places the roof of a floating roof tank in the confined space category.

Various government agencies may seek approval to go onto the top of a floating roof tank to measure seal clearance and other measurements. They should be advised that they must have their own 30-minute pressure demand breathing apparatus with certification of their training. They must also wear a safety harness and lifeline. A man with proper safety equipment, including a 30-minute pressure demand breathing apparatus, must stand by at the top of the tank with a second person within shouting distance. The same procedure applies for all Company employees.

The only exception to the above is if the floating roof is not more than 4' below the top of the tank.

These instructions must be followed without exception.

A. O. ROLSETH

JVT:aw

*APL } how do we gauge our FR tanks now  
 JAV }*

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SAFETY - NECESSITY OF SLOTTED GA. WELLS  
ON F.R. TANKS.  
SECTION IV

## PLANT OPERATION

### AIR QUALITY CONTROL

#### G. WATER IN STORAGE TANKS (Cont'd)

Additives used to improve product quality generally tend to increase the time required for water to settle out of the product to the tank bottom. Thus, if any water in a tank bottom at the start of a receipt is stirred up into the product, the product may be hazy for several hours or more until the water finally settles out.

Floating roof tanks with open-type roof drains shall be tested for water immediately following every rain storm of any consequence and again after a four-hour period. If cone roof tanks containing the same product are located in the plant, product withdrawals should be made from the cone roof tanks during the rain storm and immediately following until roof drainage has settled to the bottom of the floating roof tank.

#### D. SPECIALLY CONSTRUCTED TANKS

Specially Constructed Tanks, including tanks with floating roofs, breather roofs or balloon roofs and pressure tanks, are installed at some plants. Such tanks must be used, operated and maintained in strict accordance with special instructions which are provided in each instance. Plant operators should not, except in case of emergency, go upon the roof of a floating-roof tank because there may be dangerous accumulations of vapors in the space over the roof, especially when it is well down in the tank. Should conditions make it essential to go upon the roof of a floating roof tank, two men must work together. One to go on the roof, the other to stand by at the head of the ladder. The man who goes upon the roof must proceed with caution, and if he notices or suspects the presence of vapors, he must leave the roof immediately, so as not to be overcome. Should he be overcome, however, the man at the head of the ladder must summon help to get him up from the roof.

#### E. HEATING HEAVY OILS

Heating Heavy Oils are required in some plants, in order to reduce line pressures in pumping operations, and to speed up the loading and unloading of tank trucks — particularly in cold climates. Care must be taken to avoid overheating for the following reasons:

1. Overheating may affect the product characteristics and consequently its quality.
2. Overheating may bring the temperature of the

oil to its flash point and thus introduce a fire hazard.

3. Overheating, in the case of fuel oil, increases its solvent properties to the point where scale, wax, and other foreign matter in a customer's storage tank is dissolved and, becoming mixed with the fuel oil, causes burner trouble.
4. The overheating of oil is wasteful of steam.

The following temperatures in the heating of fuel oils are considered sufficient for all bulk plant operating and delivery purposes and should not be exceeded:

*Chevron Light Fuel Oil	85°F.
Chevron Fuel Oil	120°F.
Chevron Bunker Fuel	140°F.

\*Note: Chevron Light Fuel Oil may be loaded at up to 95°F. in cold climates as necessary to effect delivery to customers to not exceed 85°F. Approval must be obtained from Management for loading at temperatures higher than the above table, should customers request hotter oil.

Special instructions for the heating of other products, such as asphalts, road oils and lubricating oils, will be supplied when such products require heating.

At every stage of manufacturing, our products are subjected to physical and chemical tests to ensure that products shipped from the refinery conform to exacting specifications. Similar diligence is exercised in the transportation of these products to bulk plants.

It is important, therefore, that Marketing personnel continue the efforts of maintaining product quality to see that clean and uncontaminated products are delivered to our customers.

The following are some of the practices which should be remembered to prevent product contamination and customer dissatisfaction:

#### 1. PRODUCT MIXTURES —

- a. Pumping a tank car, tank truck or a tanker into the wrong storage tank. Usually the resulting mixture is unsalable and must be returned to the refinery at considerable cost. Such mixtures can only be avoided by close attention to operating detail, setting valves properly, correctly reading shipping papers, placards and product tags, etc.



NEW SECTION

WAC 173-490-202 - LEAKS FROM GASOLINE TRANSPORT TANKS AND VAPOR COLLECTION SYSTEMS.

(Paragraph 1). SPECIFIC APPLICABILITY - This section shall apply to all gasoline transport tanks equipped for gasoline vapor collection and all vapor collection systems at gasoline loading terminals, bulk gasoline plants and gasoline dispensing facilities as qualified in WAC 173-490-025 and 173-490-040.

(Paragraph 2).- PROVISIONS FOR SPECIFIC PROCESSES. Paragraph A the owner or operator of a gasoline loading or unloading facility shall only allow the transfer of gasoline between the facility and a transport tank when a current leak test certification for the transport tank is on file with the facility or a valid inspection sticker is displayed on the vehicle

(Paragraph B). The owner or operator of a transport tank shall not make any connection to the tank for the purpose of loading or unloading gasoline, except in a case of an emergency, unless the the gasoline transport tank;

(Paragraph i).....several paragraphs on testing the tanks.....)

(Paragraph C). The owner or operator of a transport tank shall:

(Sub paragraph i) Have on file with each gasoline loading or unloading facility at which gasoline is transferred a current leak test certification for the transport tank; or

(Paragraph ii) Display a sticker near the Department of Transportation Certification plate required by 49CFR-178.340-10b.....

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
JUN 18 1980

AIR QUALITY CONTROL

# Western Oil and Gas Association

United Airlines Building, 2033 Sixth Avenue, Suite 255, Seattle, Washington 98121  
(206) 682-9255

*D.D. 6/24/80*

Mr. Peter B. Bosserman  
Department of Environmental Quality  
State of Oregon  
P.O. Box 1760  
Portland, Oregon 97207

June 19, 1980  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
JUN 23 1980  
**AIR QUALITY CONTROL**


Dear Pete:

As requested during our meeting in Portland yesterday, I am enclosing a copy of the Federal Register dated June 5, 1980, which highlights EPA's comments on the Washington State Department of Ecology's SIP.

As you will note, the EPA has granted conditional approval exempting gasoline dispensing facilities in major urban areas from the requirement of a vapor balance system on the basis of the throughput of the facility being less than 200,000 gallons per year, instead of the 10,000 gallons monthly recommended by EPA.

We hope this information will assist your department. I suggest that the Environmental Quality Commission be informed of EPA's action.

Very truly yours,



D. J. Fogelquist  
Northwest Regional Manager

DJF:vs  
cc: J. D. Hartup

Attachment : *FR 37824*

by July 31, 1980 as indicated, in general, by the preceding discussion and as specifically set forth below:

a. *Cold Cleaning Degreasers*. WAC 173-490.

i. *Deficiency*. EPA guidance requires control of these sources which are exempted from the proposed State regulations.

ii. *State Response*. In their December 28, 1979 response the State disagreed with the requirement to regulate cold cleaning degreasers. They stated that emissions from these sources represent only 0.2 percent of the total VOC emissions for the non-attainment areas and that these emissions are contributed by approximately two thousand (2000) sources, making enforcement impractical, inefficient and very resource consumptive.

In April, 1980, the State agreed to thoroughly review the extent of the cold degreasers problem in non-attainment areas and adopt regulations by October 1, 1980 which would control emissions to within 5 percent of the presumptive norm level or provide justification that control to a different level is RACT.

iii. *Public Comment*. Commentors from PSAPCA, the Puget Sound Citizens Committee on Air Quality and Transportation Control Planning, the Washington Oil and Gas Association and one private citizen are opposed to regulation of this source due to the resources required for administration and implementation. PSAPCA also suggested that EPA provide an analysis of the resources necessary to implement the CTGs. In response, EPA will make available to the State information on resources necessary to implement a control program for cold degreasers as it is generated by other agencies who are implementing such a regulation.

iv. *EPA Action: Conditional Approval*—EPA will conditionally approve this portion of the SIP provided the State supplies by October 1, 1980 a detailed emission inventory showing the number of sources and their size and approximate VOC emissions from this category and adopts a regulation providing for control to within 5 percent of the presumptive norm level or justifies control to a different level as RACT.

b. *Petroleum Refineries*. WAC 173-490-040(1).

i. *Deficiency*. The State proposes exemption of refineries with a crude oil or feed stock capacity of less than nine thousand (9000) barrels per day, and waste water separators with a VOC emission less than twenty-five (25) tons per year, both of which are recommended by EPA guidance to be controlled.

ii. *State Response*. The State comments that two of the four refineries account for 99 percent of the total refinery emissions; therefore, satisfying the EPA guidance that the State regulation require control of 95 percent of the total VOC emissions from petroleum refineries.

iii. *Public Comment*. None.

iv. *EPA Action: Conditional Approval*—The information submitted by the State is incomplete and does not allow EPA to verify that emissions are, in fact, controlled within 5 percent of the presumptive norm.

c. *Bulk Gasoline Plants*. WAC 173-490-040(4)(e).

i. *Deficiency*. Contrary to EPA guidance this section does not contain specific provisions for controlling vapor leaks occurring during unloading of transport tanks.

ii. *State Response*. The State indicates that the word "transport" will be deleted from Section 4(e), thus correcting the application of the regulation to include unloading of any tank, including transport tanks.

iii. *Public Comment*. None.

iv. *EPA Action: Conditional Approval*—The action proposed by the State will correct the deficiency.

d. *Gasoline Dispensing Facilities*. WAC 173-490-040(5).

i. *Deficiency*. This section exempts gasoline dispensing facilities in major urban areas from the requirement of a vapor balance system on the basis of the throughput of the facility being less than 200,000 gallons per year instead of the 120,000 annual throughput level (10,000 gallons monthly) recommended by EPA. The State did not show that the 200,000 gallon throughput represented control within 5 percent of the presumptive norm level.

ii. *State Response*. The State provided cursory estimates indicating few facilities will be exempt using the State size cutoff for annual throughput.

iii. *Public Comments*. None.

iv. *EPA Action: Conditional Approval*—The State has provided a partial showing that controlled emissions will represent 95 percent of the level provided for in the CTG. Final approval is conditioned upon the State completing the inventory to show conclusively that all controlled emissions will be within 5 percent of the presumptive norm or the regulation will be revised to reflect the EPA recommended level or a showing will be made that the State level represent RACT.

e. *Surface Coating*. WAC 173-490-040(6).

i. *Deficiency*. This section exempts sources less than 100 tons per year and

does not specify control requirements for flashoff areas which emit a significant portion of VOC in the surface coating process.

ii. *State Response*. The State indicates that their regulation will be revised to include flashoff areas. Further, the State has made a partial demonstration to show that one (1) source is responsible for 95 percent of the VOC emissions, thus satisfying the criterion of control within 5 percent of the level identified in the CTG.

iii. *Public Comment*. None.

iv. *EPA Action: Conditional Approval*—The addition of flash off areas to the section will satisfy that part of the EPA condition. The State will submit additional data showing that controlled emissions will be within 5 percent of the presumptive norm.

f. *Open Top Vapor Degreasers*. WAC 173-490-040(7).

i. *Deficiency*. Three major areas of the CTG are not adequately addressed. These three major areas are as follows: (1) Open top vapor degreasers with less than one square meter of vapor-air interface; (2) Power operated covers for open top vapor degreasers with a freeboard ratio greater than 0.75; and (3) Provisions for the disposal of waste solvent.

ii. *State Response*. The State indicates that the three areas of concern noted above will be corrected by a revision to the regulation.

iii. *Public Comment*. None.

iv. *EPA Action: Conditional Approval*—Action proposed by the State will correct the deficiency.

g. *Conveyorized Degreasers*. WAC 173-490-040(7).

i. *Deficiency*. This section does not require a "major control device" on conveyorized degreasers with greater than a two square meter air-vapor interface, and does not provide for the disposal of waste solvent, both of which are contrary to EPA guidance described in the CTG.

ii. *State Response*. The State indicates that the regulation will be corrected to require the appropriate control device and provide for waste solvent disposal.

iii. *Public Comment*. None.

iv. *EPA Action: Conditional Approval*—The actions proposed by the State will correct the deficiency.

h. *Cutback Asphalt*. WAC 173-490-040(9).

i. *Deficiency*. This section prohibits the use of cutback asphalt during June, July, August and September unless the temperature is below 50°F. There is no temperature related information justifying this time period for prohibited use, nor are methods provided for determining compliance with the temperature requirement.

Union 76 Division

Union Oil Company of California  
Union Oil Center, Box 7600, Los Angeles, California 90051  
Telephone (213) 977-7128

EC80-338



L.L. Krohn  
Manager Environmental Control

July 14, 1980

*P.A.A.*  
Mr. Peter Bosserman  
Department of Environmental  
Quality  
522 S.W. Fifth Avenue  
Portland, Oregon 97204

Dear Pete:

Relative to the discussion we had last month in Portland on pressure decay rates for gasoline transport tests, I am enclosing a copy of EPA's draft New Source Performance Standard (NSPS) for Bulk Gasoline Terminals. The sections of interest are on pages 36 & 37. As we discussed, even this draft NSPS which represents the more stringent control requirements for new or significantly modified facilities accepts a pressure decay rate of 3 inches in 5 minutes. We believe that this rate is more appropriate than the 1 inch in 5 minute rate in DEQ's draft regulation; especially since your regulation represents RACT which is generally less stringent than the NSPS. If I can provide any additional clarification, please call me. My new phone number is (213) 977-7831.

We also discussed emissions from barge loading. WOGA is developing a response to your questions, and you should be hearing from them shortly.

Very truly yours,

*Michael J. Dougherty*

Michael J. Dougherty  
Coordinator Environmental Control

MJD:mf  
Attachment



DRAFT

MAY 1 1980

ENVIRONMENTAL CONTROL  
UNION 76 DIVISION

MAY 12 1980

LIK  
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ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 60]

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Bulk Gasoline Terminals

AGENCY: Environmental Protection Agency (EPA)

ACTION: Proposed Rule and Notice of Public Hearing

SUMMARY: The proposed standards would limit emissions of volatile organic compounds (VOC) from new, modified, and reconstructed bulk gasoline terminals. The proposed standards would require the collection of VOC vapors at tank truck loading racks, and their venting to a vapor processor. The proposed VOC emission limit from the processor outlet is 35 milligrams per liter of gasoline loaded. The proposed standards would further require that gasoline be loaded only into tank trucks which had passed an annual leak-tight certification test.

The proposed standards implement section 111 of the Clean Air Act and are based on the Administrator's determination that bulk gasoline terminals contribute significantly to air pollution. The intent is to require new, modified, and reconstructed bulk gasoline terminals to use the best demonstrated system of continuous emission reduction, considering costs, nonair quality health, and environmental and energy impacts.

A public hearing will be held to provide interested persons an opportunity for oral presentation of data, views, or arguments concerning the proposed standards.

Two methods of determining or defining leak-tightness were analyzed. The first method would require the terminal operator to load gasoline into only tank trucks which have passed an annual certification test. The certification test would be a pressure/vacuum test of the delivery tank itself and would yield a quantitative measure of the tank leakage. In this leak-tightness control format, the only requirement for the terminal operator is that he have proof that all trucks loading gasoline at that terminal have passed an annual certification test. This could be simply in the form of a copy of the certification being retained with the delivery tank truck and kept in the bulk terminal files. It was estimated that the requirement of an annual certification test could reduce average tank truck leakage emissions to about 10 percent.

The other method considered for limiting tank truck vapor leakage would require using an explosimeter during gasoline loading to determine leak-tightness. Any measurement in excess of a specified limit would define a leaking truck. Test data have shown a wide variability in the amount of time the delivery tanks remain leak-tight after certification. The data indicate that delivery tanks could remain leak-tight for periods as long as four months and as short as two weeks. This means that the explosimeter method would be likely to find leaks in delivery tanks even though the annual certification had not expired. However, the terminal operator may not have control over the maintenance of all the trucks loading at his terminal. This requirement would also add the burden of detecting leaks to the terminal operator. For

these reasons, the requirement that tank trucks pass an annual certification test was selected as the format of the standard for controlling tank truck leakage emissions.

#### SELECTION OF EMISSION LIMITS

Because the format chosen for the proposed standard, mg/liter, is the same as the format used to compare the regulatory alternatives, the numerical emission limit chosen for the proposed standard was to be the same as that of the selected regulatory alternative. The proposed standard would, therefore, limit the emissions from the processor outlet to 35 mg/liter. (The rationale for the selection of the 35 mg/liter limit is discussed with the selection of the regulatory alternatives.)

The limits imposed on tank trucks under the proposed standards would require that the tank trucks pass an annual leak-tight certification test. The certification test would require alternatively applying a pressure of 457.5 millimeters (18 inches) of water and a vacuum of 152.5 millimeters (6 inches) of water to the delivery tank and require that the tank have a pressure loss of less than 75.0 millimeters (3 inches) of water in 5 minutes from either pressure level. These limits for the tank truck certification test represent a vapor containment efficiency of 99 percent after certification.

*Guess?* However, since the trucks do not remain leak-tight, the average annual containment efficiency reduces to about 90 percent.

DATE: 21 DEC 1979

SUBJECT: Telephone Conference on State of Virginia VOC Regulations - December 13, 1979

FROM: G. T. Helms, Chief *Tom*  
Control Programs Operations Branch

TO: Jim Sydnor  
Air Programs Branch, Region III

This memorandum is to confirm our telephone conversation of December 13, 1979 concerning issues involved in the State of Virginia VOC regulations.

A summary of major issues discussed and our recommendations are as follows:

1. 100-Ton Sources

Urban and rural nonattainment areas not needing an extension (by virtue of a demonstration of attainment by 1982) may have a source cutoff size of 100 tons per year. In these instances, Stage I, bulk plants, and small degreasers would be exempt. Cutback asphalt is controlled on an area basis, and as such, emissions generally exceed 100 tons/year. However, there may possibly be a few nonattainment areas (if they are small and are single county) where you can come up with emissions less than 100 tons per year for cutback asphalt.

2. Cutback Asphalt

The rationale for the exemption of cutback asphalt coatings, such as tack coats, should be documented by the State of Virginia. A justification might show that this exemption is needed in the State because of unique technical problems or unique (case-by-case) economics. An acceptable alternative is to make a five percent equivalency showing.

3. Stage I

The proposed exemption based on a gasoline throughput of 20,000 gallons per month would not be acceptable for areas needing attainment date extensions (1987) unless the State can demonstrate that it complies with the five percent rule. Since Stage I controls generally do not represent 100 tons/year sources and would not have to be controlled under current policy in rural ozone nonattainment areas and areas not needing extensions, the 20,000 gallons/month throughput value can be approved in these two cases. For areas needing an attainment date extension, we would accept an exemption based on a 10,000 gallons per month throughput or a tank size exemption for existing tanks less than 2,000 gallons and new tanks less than 250 gallons.



#### 4. Degreasers

A recent policy memo dated December 12, 1979, from Richard G. Rhoads to Director, Air and Hazardous Materials Division, Regions I-X, provides that, in urban nonattainment areas needing an extension until 1987, small degreasers should not be exempt.

#### 5. Emission Inventory

Only if correction to the emission inventory emission factors will affect the attainment date would we concur with Regional disapproval. We suggest that you accept a categorical emission inventory and establish an EPA/State goal (possibly through grant negotiations) to secure a source-specific emission inventory.

#### 6. Ford Plant

The State of Virginia has proposed a VOC emission limit of 4.8 lbs/gallon of coating (minus water) for automotive and light duty truck assembly plant topcoat applications. The CTG suggests a limitation of 2.8 lbs/gallon (minus water). In previous negotiations with the Ford Motor Company, they made the case, based on economics, that 3.6 lbs/gallons (minus water) for topcoat applications represented RACT in comprehensive control programs for a couple of specific plants in the midwest. This could well be the case in Virginia, and a control level of 3.6 might be more appropriate than 2.8, dependent upon plant life, economics, and other factors. EPA should be receptive to such a detailed plant-specific showing. However, the State of Virginia feels that since attainment by 1982 has been demonstrated by rollback with a lesser degree of control required, the 4.8 lbs/gallon emission limitation should be acceptable. EPA policy for urban nonattainment areas not needing an extension is that RACT is applicable on 100 tons per year or greater point sources. RACT for topcoat applications is as previously noted unless a demonstration is made that another, less stringent, emission limit represents RACT. It is our understanding that the Regional Office has no information in writing justifying as RACT the 4.8 lbs/gallon emission limitation for topcoat applications. Since no separate or satisfactory showing exists to demonstrate that the 4.8 lbs/gallon emission limit is more appropriately RACT (than either 2.8 or 3.6), then disapproval is recommended.

#### 7. Benzene

The definition of VOC would include benzene from both coking and petroleum refinery operations. However, benzene from coking operations is excluded from fixed-roof storage tank CTG requirements. Petroleum liquids only should be controlled as defined in the CTG document.

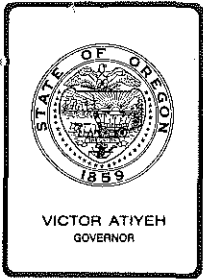
#### 8. Definition of VOC

The definition of VOC is cited in the CTG for surface coating of cans, coils, paper, etc., (EPA-450/2-77-008, Appendix C, Page C-4). VOC is defined as any compound of carbon (excluding carbon monoxide, carbon

dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate) that has a vapor pressure greater than 0.1 mm of Hg at standard conditions.

It is hoped that the above comments and/or recommendations will be helpful in your evaluation of the Virginia State Implementation Plan. Please contact ~~Tom Helms~~ Tom Helms (FTS 629-5226) should you have any questions.

cc: N. Swanson, Region III  
H. Frankford, Region III  
G. T. Helms  
B. Nicholson  
W. Polglase  
D. Smith  
T. Williams



# *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

## MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. Q, September 19, 1980, EQC Meeting

Proposed Adoption of a Revision of the State Implementation Plan Regarding the Salem Nonattainment Area Plan to Meet the Federal Ozone Ambient Air Quality Standard

## BACKGROUND AND PROBLEM STATEMENT

1. EPA published notice in the January 21, 1980 Federal Register concerning inadequacies of the State Implementation Plan (SIP). The EPA considered the Salem ozone (O<sub>3</sub>) attainment analysis to be unapprovable, due to modeling inaccuracies caused by an inadequate data base and unquantified but suspected significant impacts from the Portland area. They recommended that the State identify reliance on the rural O<sub>3</sub> policy for the Salem control strategy in lieu of a full attainment plan.

A revised plan that is in accordance with EPA's rural O<sub>3</sub> policy has been developed. A public hearing was held on August 4, 1980. The plan is needed in order to meet the requirements of the Clean Air Act Amendments of 1977 and EPA's SIP approval conditions.

The proposed revised plan is shown in Attachment 3.

2. Authority to Act: ORS 468.305 and the Federal Clean Air Act as amended, 1977 (PL 95-95) provide the legal authority to adopt the proposed rule. The Statement of Need for Rulemaking is shown in Attachment 1.

## ALTERNATIVES AND EVALUATION

### Alternative Courses of Action

An alternative to basing Salem's O<sub>3</sub> control strategy on EPA's rural O<sub>3</sub> policy is to develop a control strategy using a modeling approach that adequately accounts for the influence of emissions from Volatile Organic Compound (VOC) sources in Portland. However, the existing O<sub>3</sub> data base



Contains  
Recycled  
Materials

has been judged to be inadequate for such an approach. To correct the data base deficiencies, the Department would need to install an O<sub>3</sub> monitor upwind of Salem and wait for a sufficient amount of data to be collected.

By contrast to the above alternative, the elements of EPA's rural O<sub>3</sub> policy can be readily put into the SIP. This is the preferred course of action.

Failure to adopt the proposed rule could lead to sanctions under Sections 176 or 316 of the Clean Air Act. Section 176 affects federal grants for certain transportation projects, and Section 316 affects federal grants for certain sewage treatment works.

#### Rule Development Process

In a June 4, 1980 letter to the Mid-Willamette Valley Council of Governments, the Department outlined the major features of the proposed plan revision. Copies of the letter were sent to affected local jurisdictions. The revised plan has been reviewed by the Department's staff and the Attorney General's staff. No oral testimony was offered at the public hearing. Written comments were received from a private citizen, Ms. Mary A. Payton, and are attached as they appear in the Hearing Officer's Report (Attachment 2). The revised plan has also received A-95 review. No major issues were raised.

#### Major Elements of the Proposed Rule and Principal Impacts

The proposed revised plan relies on EPA's rural O<sub>3</sub> policy which consists of: 1) Reasonably Available Control Technology (RACT) for major (greater than 100 tons/year) existing VOC sources covered by Control Technology Guidelines and 2) Lowest Achievable Emission Rate (LAER) for major (greater than 100 tons/year) new or modified VOC sources. Also, the rural O<sub>3</sub> policy requires an approvable control strategy for nearby major urban areas (the Portland area in this case).

The revised plan meets the above requirements, since RACT presently applies to all significant sources. Also, the local control requirements are the same as submitted in June, 1979, but the controversial strategy calculations have been removed.

The updated costs of the VOC Rules which incorporate RACT are estimated below:

<u>Strategy</u>	<u>Approximate Cost</u>
VOC Rules	
Gas Stations	\$70,000
Asphalt Contractors	30,000

Continued:

<u>Strategy</u>	<u>Approximate Cost</u>
Misc. Parts Painting	164,000
Perc Dry Cleaning	10,000
Tank Truck Leak Tests	<u>30,000</u>
Total	\$304,000

The costs of LAER would depend on the type of source and cannot be readily quantified.

SUMMATION

1. A revised plan to bring Salem into attainment with the federal primary standard for ozone (O<sub>3</sub>) has been developed. The plan conforms to the EPA recommended rural O<sub>3</sub> policy. A public hearing was held on August 4, 1980 to secure comment. The proposed plan is needed in order to meet the requirements of the Clean Air Act Amendments of 1977 and EPA's SIP approval conditions.
2. By letter of June 4, 1980, the Department outlined the major features of the proposed plan revision to the Mid-Willamette Valley Council of Governments and affected local jurisdictions.
3. The revised plan consists of: a) existing Reasonably Available Control Technology (RACT) Rules applied to all significant Volatile Organic Compound (VOC) sources; b) existing Lowest Achievable Emission Rate (LAER) Rules applied to major new or modified VOC sources; and c) an approvable control strategy in the Portland area.
4. The updated cost of VOC Rules is estimated to be \$304,000. The costs of LAER would be variable and depend upon the particular type of source.
5. Failure to adopt the proposed rule could lead to sanctions related to certain transportation projects and sewage treatment projects.

DIRECTOR'S RECOMMENDATION

Based upon the summation and the Statement of Need for Rulemaking, the Director recommends that the EQC adopt Salem's revised attainment plan for meeting the federal ozone standard and direct the Department to submit the plan to the EPA as a revision of the State Implementation Plan.

William H. Young *WHS for*

- Attachments: 1) Statement of Need for Rulemaking  
2) Hearing Officer's Report  
3) Proposed Ozone Plan Revision

HWH: kmm  
229-6086  
September 3, 1980  
AQ367

**STATEMENT OF NEED FOR RULEMAKING**

Pursuant to ORS 183.335(2), this statement provides information on the intended action to amend a rule.

**Legal Authority**

ORS 468.305 and Federal Clean Air Act as Amended 1977 (PL 95-95).

**Need for the Rule**

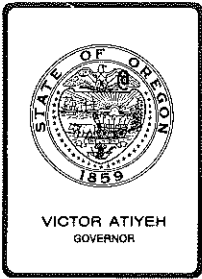
The proposed revision to the Salem ozone control strategy is in response to EPA conditions of approval of the June, 1979 SIP. The EPA suggested that the ozone control strategy conform to EPA's rural ozone policy. The proposed revision is in accordance with the rural ozone policy.

**Principal Documents Relied Upon**

1. Clean Air Act Amendments of 1977, PL 95-95, 8/7/77.
2. Rhoads, Richard (memo dated May 4, 1979), Need for Emission Offsets in Rural Ozone Nonattainment Areas.
3. Federal Register of January 21, 1980, pages 3929 to 3938.
4. OAR 340-22-100 to 340-22-220 relating to Volatile Organic Compounds.
5. OAR 340-20-240(1) relating to Lowest Achievable Emission Rate.
6. Oregon Air Quality report 1978, by State of Oregon, Department of Environmental Quality (DEQ).

**Fiscal Impact Statement**

The proposed Rule change imposes no additional fiscal impact. However, the cost data for this revision have been updated. The VOC Rules are estimated to have a lumped cost of \$304,000 which includes all existing VOC sources covered by these Rules in the Salem Nonattainment Area. The costs of LAER depend upon the nature of the particular controlled source. As a possible example of LAER, "Volume VI: Surface Coating of Miscellaneous Parts and Products," EPA Guideline Series, EPA - 450/2-78-015, shows that thermal incineration control for a large new or modified VOC source would require a \$1.9 million investment, based on 1977 dollars. For the 1979-1981 Biennium, the Department of Environmental Quality has allocated approximately 1.7 Full Time Equivalent for monitoring and implementation.



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Hearing Officer

Subject: Hearing Report: Proposed Revision of the State Implementation Plan Regarding the Salem Nonattainment Area Plan to Meet the Federal Ozone Ambient Air Quality Standard

### SUMMARY OF PROCEDURE

Commencing at 10:30 A.M. on Monday, August 4, 1980, a public hearing was held in Room 511 of the Yeon Building located at 522 S.W. 5th Avenue, Portland, Oregon. No testimony was offered. Written testimony, a copy attached, was received from Ms. Mary A. Payton.

### SUMMARY OF WRITTEN TESTIMONY

Ms. Payton states that she can identify those factors which make worse certain of her illnesses. Among those are sprays (unidentified) used around yards and on trees. She cites an instance when she became very ill after driving along a road that apparently had been subjected to herbicidal spraying. She considers this to be an ozone problem. Ms. Payton also objects to odors from the Salem Boise Cascade paper-making plant.

### RECOMMENDATION

Your hearing officer makes no recommendation in this matter.

Respectively Submitted,

Howard W. Harris  
Hearing Officer

HWH:kmm  
AQ321 (1)  
August 12, 1980  
Attachment



Contains  
Recycled  
Materials

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RECEIVED  
JULY 1980  
MIL 9 1980

DEQ Air Quality Division  
Box 1760  
Portland, OR 97207

Mr. Howard Harris

Re: Salem 'ozone' quality.

Dear Mr. Harris:

I had to leave the Los Angeles area years ago because of 'smog' irritation to my eyes, nose, throat and lungs. At first the doctor advised me to cut down on my smoking, when told I didn't smoke, he said to leave the area as soon as possible.

A doctor here in Salem sounded very annoyed with me: Oh, you're one of those! he said. What? Hypersensitive! He wrote a perscription for my face rash and irritated system. I asked the druggist what it was. Tranquilizer! I didn't fill the perscription. So I now understand the doctor's irritation a little better all the time! He can't tell me what to avoid without long series of tests. I know from different illness those factors which make me worse and I try to avoid them as much as I can. Sprays that are used around yards and on trees. One of the summers when I first returned to Oregon I drove out through West Salem about 8 miles out to my brother's farm. I became very ill - the roadside all the way out was grotesque with twisted plant life - terrible looking. Since I had been driving and only had window part way down I really didn't think that could have caused such a reaction. We made several trips out there, I only became ill if the window was open and weather was warm. I do consider this an 'ozone' problem! How dare we poison everything and make animals and people sick!

I have a very annoying game that is played between wanting to get some newer air into my apartment and trying to avoid the stomach upset from Boise Cascade. My husband smells that crap before I do by a few seconds so he yells 'window' and we crank it shut tight until looks like the more obvious amount is going south! For those who think I am overdoing it what can I say? I have been told to move, I have been told 'oh, it's not so bad today is it? as they puff away (how would they know), I have called every office I can think of when the stench is pouring out (Xyou can count on heavy amounts Friday thru Sunday nights)! I have been told that they will have to move out of town someday - when will that be?? When the governor and his family all get sick?? Do you wonder why 'the citizens' don't complain more? What good does it do?

See you at the meeting.

Sincerely,

Mary A. Payton A pt. 705  
585 Winter NE  
Salem, OR 97301

Enc. One

P.S. There is a

Shocking situation by Brooks - awful fumes!  
+ School very near-by. Fiberglass & plastics!



OAR 340-20-047

Sections 4.5 and 5.5 of the State of Oregon Clean Air Act Implementation Plan are hereby replaced with the following:

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4.5.0 SALEM NONATTAINMENT AREA STATE IMPLEMENTATION PLAN FOR OZONE	
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4.5.5.2 A-95 Review Procedure	
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## Appendix

### 4.5-1 Public Involvement, Notice and Hearings

#### List of Tables

- 4.5.1-1 Ozone Air Quality Summary, 1975-1978
- 4.5.2-1 Approximate Costs of Implementing Attainment Strategies
- 4.5.4-1 Projected Department of Environmental Quality Resource Commitments

#### List of Figures

- 4.5.5-1 Review and Decision-Making Process of the Salem Area Transportation Study

#### 4.5.0 SALEM NONATTAINMENT AREA STATE IMPLEMENTATION PLAN FOR OZONE

##### 4.5.0.1 Introduction

The Clean Air Act of 1970 and the Clean Air Act Amendments of 1977 establish guidelines outlining the methods and schedule by which National Ambient Air Quality Standards must be attained. Generally, areas throughout the nation are required to develop plans for attainment if past air monitoring indicates they do not comply with the federal ambient air quality standards. The Salem area marginally violates the federal ambient air quality standard for ozone of 0.12 parts per million (ppm) one-hour average. Consequently, the Salem city limits were designated a Nonattainment Area for ozone in March, 1978. The original Nonattainment Area was expanded by Mid-Willamette Valley Council of Governments to include the area within the Salem Area Transportation Study boundary. A legal description of the Nonattainment Area is contained in Appendix 4.4-1.

##### 4.5.0.2 Summary of Control Strategy

Salem's ozone concentrations appear to be significantly impacted by emissions of ozone precursors in the Portland area. Since Salem is technically defined under EPA guidelines as a "rural" ozone Nonattainment Area (less than 200,000 population) and is impacted by emissions from an urban area, EPA's rural ozone policy is applicable.

That policy consists of three elements: 1) controls on major existing Volatile Organic Compound (VOC) sources under Reasonably Available Control Technology (RACT) Rules; 2) controls on major new VOC sources under Lowest Achievable Emission Rate (LAER) Rules; 3) an approvable control strategy for major urban areas. Element 3 applies to the Portland urban area.

Growth is projected to be rapid in the Salem Nonattainment Area for the next two decades. Population is expected to grow from 110,800 in 1975 to 200,700 by the year 2000, an increase of 81%. To deal with the added pollution burden resulting from this growth, the State of Oregon will implement New Source Review Rules to control emissions from major new industrial sources by requiring LAER.

#### 4.5.1 AMBIENT AIR QUALITY

Ozone is not directly emitted into the atmosphere but results from a reaction between volatile organic compounds and nitrogen oxides in the presence of sunlight. Maximum ozone levels occur downwind of the areas producing these precursors. Salem's ozone monitor, located downwind of the Salem city center at the Salem Airport, does not meet current federal siting guidelines. A new site which meets federal criteria has been selected.

Table 4.5.1-1 summarizes ozone air quality data for days exceeding the new federal ambient air quality standard of 0.12 ppm one-hour average at the Salem Airport ozone monitor. The data is presented for illustrative purposes, even though the monitor probably does not measure maximum ozone levels occurring downwind of Salem.

Table 4.5.1-1

#### Ozone Air Quality Summary, 1975 - 1978

<u>Year</u>	<u>Number of Days Exceeding 0.12 ppm 1 hr. Avg.</u>	<u>Hourly Ozone Concentration (ppm)</u>	
		<u>Highest</u>	<u>Second Highest</u>
1975	1	0.122	0.084
1976	0	0.114	0.102
1977	3	0.167	0.153
1978	4	0.149	0.147

## 4.5.2 OZONE CONTROL STRATEGY

### 4.5.2.1 Level of Control Needed

Salem's ozone control strategy meets the requirements of EPA's rural ozone policy. The policy consists of certain controls on VOC sources, explained below in Section 4.5.2.2, and an approvable control strategy for major urban areas (Portland). Under the policy no specific modeled strategy reduction of total VOC emissions for the Salem Nonattainment Area needs to be identified.

### 4.5.2.2 Control Alternatives

EPA's rural ozone policy requires the implementation of two types of control: a) Reasonably Available Control Technology (RACT) for existing VOC sources covered by EPA authored Control Technology Guideline documents; b) Lowest Achievable Emission Rate (LAER) for new or modified sources of greater than 100 tons/year potential VOC emissions. These controls are explained in succeeding sections.

Reasonably Available Control Measures (RACM) for mobile sources are not required by EPA's rural ozone policy, but some of the EPA recommended RACM's are already implemented or committed for implementation. These measures are documented in Section 4.5.2.3.

An alternative to the EPA rural ozone policy is the development of a control strategy based upon modeling that adequately accounts for the influence of emissions from sources in Portland. The existing data base has been judged to be inadequate for such an approach.

#### 4.5.2.3 Selected Strategies

The selected strategies are the two aforementioned control elements of EPA's rural ozone policy: RACT and LAER. Although RACM's for transportation sources are not a required strategy, the existing alternative mode program that is consistent with RACM is documented in this section. The reduction strategies are:

##### 1. RACT-Volatile Organic Compounds Rule

To reduce VOC from existing sources, RACT will be required for those sources covered by EPA issued Control Technology Guideline documents. The specific sources impacted by this rule are described under Rules and Regulations, Section 4.5.3.

##### 2. LAER - Lowest Achievable Emission Rate

The LAER requirements are contained in OAR 340-20-240(1). Under LAER VOC sources emitting greater than 100 tons/year potential VOC would be limited to an emission rate that is: a) the most stringent emission limitation of any State's implementation plan for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or b) the most stringent emission limitation which is achieved and maintained in practice by such class or category of source, whichever is more stringent. Under (a) or (b) a new or modified source shall in no event be permitted to emit any air contaminant in excess of the amount allowable under applicable new source performance standards.



Although the air quality analysis did not incorporate travel reductions from an Alternate Modes Program, such a program is now being extensively implemented in the Salem Urban Area. Nine of the fourteen EPA recommended RACM's already implemented or committed for implementation are listed below:

Carpool Program. Over 1,000 employees have availed themselves of the MWVCOG initiated Carpool Match Program. Carpool parking spaces are reserved on streets located close to employment centers, and major parking structures have spaces reserved for carpools.

Express Bus/Park and Ride Program. An extensive Park and Ride Program began operating throughout the Salem Urban Area on January 2, 1979.

Bicycle Facilities. A Bicycle Plan has recently been completed and submitted for review by interested organizations. It will be incorporated into the Salem Area Comprehensive Plan and the SATS Transportation Plan.

Transit. The existing bus fleet is being expanded by purchasing used buses from other cities.

Private Car Restrictions. A 600 space lot for downtown employee parking will be terminated when construction begins for the planned Front Street Bypass.

On Street Parking Controls. Most streets within the downtown and Capitol Mall area are off-limits to commuter parking with \$20 fines imposed on violators. Residential parking districts have been established around the Capitol Mall which are reserved for residents and two hour parking.

Staggered Working Hours. Flex hours have been available for over a year for all State, City, and County employees.

Pedestrian Malls. Construction has begun on a pedestrian mall which will cover two city blocks.

Traffic Flow Improvements. Five operations improvement projects have been scheduled for 1979. These projects will smooth traffic flow at intersections.

#### 4.5.2.4 Socio-Economic Effects

In accordance with Section 172(b) (9) (A) of the Clean Air Act Amendments, an identification and analysis of the air quality, health, welfare, economic, energy, and social effects of the State Implementation Plan (SIP) follows:

Air Quality. Through the adopted strategies, ozone will be controlled on the basis of the EPA's rural ozone policy. Heavy reliance for attainment of the federal standard of 0.12 ppm will be placed on an effective control strategy in the Portland urbanized area. Emission

reductions of ozone forming vapor in Salem will be from the Volatile Organic Compound Rules and the Lowest Achievable Emission Rate regulation.

Health Effects. EPA has established the 0.12 ppm 1-hour average ozone standard based on available health impact studies. Attainment of the 0.12 ppm standard should, according to EPA, provide for the safety of the health of the community with an adequate margin of safety. However, the Environmental Quality Commission (EQC) has set the state standard at 0.08 ppm. The selected strategy is not intended as being sufficient to meet the state standard. A comprehensive staged strategy occurring over an extended time period is contemplated as the means for achieving the state ozone standard.

Welfare Effects. EPA has established an ozone standard of 0.12 ppm 1-hour average to protect welfare. The EQC has also set 0.08 ppm as the state standard to protect welfare.

Economic Effects. The control strategy is based upon the VOC Rules and LAER Rules. Table 4.5.2-1 summarizes the costs of implementing the VOC Rules. The costs of LAER would depend on the type of source and cannot be readily quantified.

Table 4.5.2-1

Approximate Costs of Implementing RACT

<u>Strategy</u>	<u>Approximate Cost</u>
VOC Rules	
Gas Stations	\$70,000
Asphalt Contractors	30,000
Misc. Parts Painting	164,000
Perc Dry Cleaning	10,000
Tank Truck Leak Tests	<u>30,000</u>
Total	\$304,000

Energy Effects. Industrial and petroleum commercial operations will partially recover petroleum compounds by implementing the VOC regulations.

Social Effects. The major social effect of the SIP is a favorable one. Individuals benefit from the cleaner air achieved through implementation of the control strategies.

### 4.5.3 RULES AND REGULATIONS

The rules and regulations pertaining to existing volatile organic compound sources are the Volatile Organic Compound Rule (OAR 340-22-100 through 220). The actual rules applying to existing sources are covered in Section 3.2. The rules applying to new sources are discussed in Section 5.5.

#### 4.5.3.1 Volatile Organic Compound Rules

To meet Environmental Protection Agency requirements, Volatile Organic Compound Rules for applicable Group I sources have been adopted and additional Volatile Organic Compound Rules will be adopted as new Control Technology Guidelines become available.

<u>Group I</u>	<u>Date of Proposed Applicability</u>
	1979
1) Large Appliance Manufacture	
2) Magnet Wire Insulation	
3) Gasoline Bulk Plants	
4) Metal Furniture Manufacture	
5) Petroleum Liquid Storage, Fixed Roof Tanks	
6) Degreasing	
7) Bulk Gasoline Terminals	
8) Petroleum Refinery Vacuum Systems, Waste Water Separators and Process Unit Turnaround	
9) Service Stations, Stage I	
10) Cutback Asphalt Paving	
11) Surface Coating of Cans, Coils, Paper, Fabric, Automobiles and Light-duty trucks	

- 1) Petroleum Refinery Fugitive Emissions (leaks)
- 2) Misc. Parts Painting
- 3) Pharmaceutical Manufacture
- 4) Rubber Products Manufacture
- 5) Large Tank Second Seals
- 6) Vegetable Oil Processing
- 7) Graphic Arts (Printing)
- 8) Flat Wood Products
- 9) Perc Dry Cleaning
- 10) Tank Truck Leak Tests

Of the sources impacted by the Volatile Organic Compound Rules under Group I, only service stations, degreasing operations, and the laying of cutback asphalt exist in the Salem Nonattainment Area at present. Under Group II three sources exist: Misc. Parts Painting, Perc Dry Cleaning, and Tank Truck Leak Tests. Control equipment will be required for degreasing operations and for the transfer of gasoline from tank trucks to service stations storage tanks (Stage I) and laying of cutback asphalt will be subject to seasonal limitations. For Misc. Parts Painting, control of emissions will be mostly through change to painting formulas. Control equipment will be required for Perc Dry Cleaning.

#### 4.5.4 RESOURCE ANALYSIS/COMMITMENT

Local Involvement. The Mid-Willamette Valley Council of Government as lead agency has completed its tasks for the transportation planning process for ozone air quality. Any work which MWCOG does to update the population, employment, and land use assumptions used as input for the ozone air quality analysis will be done as part of the general planning routine and not as a special task for air pollution planning. Therefore, no additional cost is foreseen at the local level.

State Involvement. The DEQ has responsibility to implement the ozone control strategy. The estimated costs for carrying out these tasks are summarized in Table 4.5.4-1 in full time equivalents (FTE) on a biennial basis.

Table 4.5.4-1  
Projected DEQ Resource Commitments

<u>Division</u>	1979 - 1981 Biennium <u>FTE</u>
Headquarters Staff	
Monitoring	0.88
Planning and Development	0.10
Regional Staff	
VOC Rule Implementation	0.70

ODOT is not projected to be further involved with the ozone strategy.

#### 4.5.5 PUBLIC INVOLVEMENT

##### 4.5.5.1 Organizational Responsibility for Carrying out the SIP

Through a Memorandum of Understanding, Marion County, Polk County, and the City of Salem requested the Governor to designate Mid-Willamette Council of Governments as the lead agency to prepare the ozone State Implementation Plan revision. On March 30, 1978, the Governor requested Environmental Protection Agency to recognize Mid-Willamette Valley Council of Governments as the lead agency for the Salem Nonattainment Area. EPA concurred with that designation on April 14, 1978.

The main strategies from EPA's rural ozone policy are the State Volatile Organic Compound Rules and Lowest Achievable Emission Rate for new sources. The Department of Environmental Quality will be responsible for carrying out these programs and evaluating their effectiveness.

##### 4.5.5.2 A-95 Review Procedure

Comments and responses from the A-95 review procedure on Salem's ozone control strategy portion of the State Implementation Plan are contained in Appendix 4.5-1.

##### 4.5.5.3 Consultation Process and Organizations Specified

Through powers delegated by Mid-Willamette Valley Council of Governments and through a cooperative agreement between the Oregon



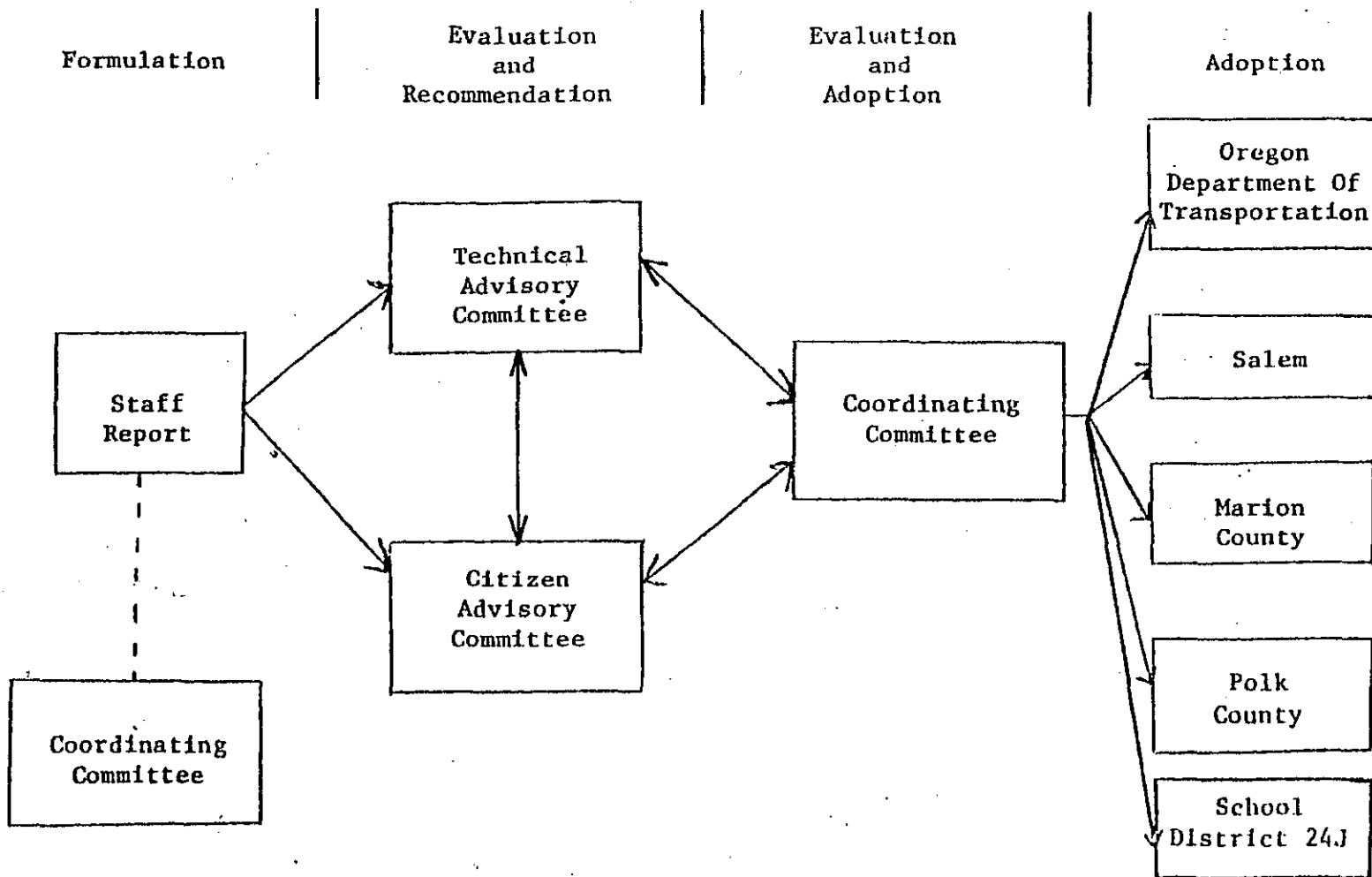
Department of Transportation and Mid-Willamette Valley Council of Governments, a group of committees known as the Salem Area Transportation Study was given authority for preparing and adopting transportation plans in the Salem urbanized area. The Salem Area Transportation Study includes representatives from Oregon Department of Transportation, the City of Salem, Polk and Marion Counties, School District 24J, a Technical Advisory Committee (TAC), and a Citizens Advisory Committee (CAC). All State Implementation Plan work was coordinated through Salem Area Transportation Study. The Salem Area Transportation Study organizational structure is shown in Figure 4.5.5-1.

#### 4.5.5.4 Air Quality Planning Responsibilities

An air quality planning work program was devised during 1978 by Oregon Department of Transportation (ODOT), Department of Environmental Quality (DEQ) and Mid-Willamette Valley Council of Governments (MWVCOG). A list of the role and responsibility of each agency follows.

<u>Role/Responsibility</u>	<u>Agency</u>
Lead agency for air quality planning program management	MWVCOG
SATS-CC Support	MWVCOG
SATS-TAC Support	MWVCOG
SATS-CAC Support	MWVCOG
Other Special Interest Groups	MWVCOG
Mobile source emission estimates	ODOT-MWVCOG
Stationary source emission estimates	DEQ
Technical analysis and evaluation control strategies	
a. Mobile	MWVCOG, ODOT, DEQ
b. Stationary	DEQ
Transportation Control Plan and mobile source SIP revisions	MWVCOG, DEQ
Stationary source SIP revisions	DEQ
TCP/SIP revision hearings	DEQ

Review and Decision-Making Process of the  
Salem Area Transportation Study



#### 4.5.5.5 Consultation with Other Planning Agencies

A letter explaining EPA's rural ozone policy was sent to the City of Salem, Marion County, and Polk County through the Mid-Willamette Valley Council of Governments prior to the formal public comment period.

#### 4.5.5.6 Consistency with Plans and Programs

To comply with the Clean Air Act Amendments of 1977 and the subsequent guidelines issued concerning consistency of base data, the Mid-Willamette Valley Council of Governments revised the Salem area population figures. The population projections for the Salem Urban Growth Boundary are now consistent for land use planning, water quality 208 planning, 701 planning, air quality planning and transportation planning.

#### 4.5.5.7 Public Involvement Procedures

At the monthly meetings of the Citizens Advisory Committee, Mid-Willamette Valley Council of Governments has periodically reported on the progress of the ozone State Implementation Plan air quality analysis.

The DEQ publishes a report each year on air quality, covering the entire state. These reports are widely distributed and contain summaries of the most recent air quality measurements.

## 4.5.6 PUBLIC NOTICE AND HEARINGS

### 4.5.6.1 Public Notice

Public notice was published in the Oregon Secretary of State's Bulletin on July 1, 1980. This notice may be found in Appendix 4.5-1.

### 4.5.6.2 Media Coverage

Paid public advertisements of the proposed State Implementation Plan revision were placed in the Salem Statesman and Capitol Journal on July 4, 1980, to satisfy both EPA and State notice requirements.

### 4.5.6.3 Public Hearing

The Hearing Officer's Report on the public hearing held on August 4, 1980, is contained in Appendix 4.5-1.

### 4.5.6.4 Annual Report

Under EPA's rural ozone policy, Reasonable Further Progress tracking is not required. However, EPA requires an annual report that identifies growth of major new or modified existing sources, minor new sources, and mobile sources. The annual report must be submitted to EPA by July 1 for the previous calendar year.

## 5.5 NEW SOURCE REVIEW FOR THE SALEM NONATTAINMENT AREA - OZONE

Rules OAR 340-20-220 to 280 give the Department expanded authority and requirements regarding New Source Review for Sources Locating In or Near Nonattainment Areas.

The Clean Air Act Amendments of 1977, Sections 171, 172, 173, require that the 1979 State Implementation Plan contain an adequate permit program.

Major new or modified volatile organic compound sources in the actual Salem Ozone Nonattainment Area with potential emissions greater than 100 tons per year must meet the requirements contained in OAR 340-20-240(1), (2), in order for a construction permit to be issued. The requirements are listed below:

1. Lowest achievable emission rate.
2. Demonstrate that all other facilities under the authority of the permit applicant are in compliance or on a compliance schedule to meet State Rules.

The following sections of the New Source Review permit program do not apply to volatile organic compound sources that need a permit and locate in the actual Salem Ozone Nonattainment Area: OAR 340-20-240(3) - (8).

In Salem the Rules have the main effect of rigidly limiting the amount of ozone forming vapor that can escape from sources required to have a permit.

## APPENDIX 4.5-1

### PUBLIC INVOLVEMENT, NOTICE AND HEARINGS

A public hearing on the proposed revision to the Salem ozone control plan was held on August 4, 1980. The public notice for this hearing was mailed to interested and affected citizens on June 30, 1980. A newspaper advertisement for the hearing was published in the Statesman-Journal on July 4, 1980. The only testimony received was submitted by a private citizen, Ms. Mary A. Payton. Her comments are attached to the hearing report in this appendix. No significant issues were raised by Ms. Payton's testimony so no response was deemed necessary. Copies of the public notice and the newspaper advertisement are in this appendix.

Copies of the proposed revision to the Salem ozone control plan were sent to the State A-95 Clearinghouse and the Mid-Willamette Valley Council of Governments for review. No comments were received.



# Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

Prepared: June 6, 1980

Hearing Date: August 4, 1980

## NOTICE OF PUBLIC HEARING

### A CHANCE TO BE HEARD ABOUT:

#### SALEM OZONE CONTROL STRATEGY

The Department of Environmental Quality is proposing to revise the ozone control strategy for Salem to conform to EPA's rural ozone policy. The action is in response to EPA conditions of approval of the June, 1979 SIP. The Department will submit the adopted revisions to the Environmental Protection Agency as a revision to the State Clean Air Act Implementation Plan. A hearing will be held on this matter in Portland on August 4, 1980.

### WHAT IS THE DEQ PROPOSING?

Interested parties should request a copy of the complete proposed rule package. Some highlights are:

- \*\* Strategy calculations projecting attainment of the ozone standard have been removed due to the uncertainty of the data bases and possibly large impact from the Portland Metropolitan area.
- \*\* Controls for stationary sources of ozone forming vapor adopted in June, 1979 will be retained and applied in the Salem area.

### WHO IS AFFECTED BY THIS PROPOSAL:

The residents of the Salem area.

### HOW TO PROVIDE YOUR INFORMATION:

Written comments should be sent to the Department of Environmental Quality, Air Quality Division, Box 1760, Portland, Oregon 97207, and should be received by August 4, 1980.

Oral and written comments may be offered at the following public hearing:

<u>City</u>	<u>Time</u>	<u>Date</u>	<u>Location</u>
Portland	10:30 a.m.	August 4	Yeon Building Room 511 522 SW 5th Avenue

WHERE TO OBTAIN ADDITIONAL INFORMATION:

Copies of the proposed strategy may be obtained from:

Howard Harris  
DEQ Air Quality Division  
Box 1760  
Portland, Oregon 97207  
503 229-6086

LEGAL REFERENCES FOR THIS PROPOSAL:

Clean Air Act Amendments of 1977 (PL 95-95). The hearing is being proposed under authority of ORS 468.020 and 468.305.

LAND USE PLANNING CONSISTENCY:

The Department has concluded that the proposals do affect land use.

With regard to Goal 6 (air, water and land resources quality) the rules are designed to enhance and preserve air quality in the affected area and are considered consistent with the goal.

Goal 11 (public facilities and services) is deemed unaffected by the proposals.

Public comment on any land use issue involved is welcome and may be submitted in the same fashions as are indicated for testimony in this NOTICE OF PUBLIC HEARING.

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 apparent conflict brought to our attention by local, state or federal authorities.

FURTHER PROCEEDINGS:

After public hearing the Commission may approve the strategy identical to the proposed, adopt a modified rule strategy on the same subject matter, or decline to act. The adopted strategy will be submitted to the Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come on September 19, 1980, as part of the agenda of a scheduled Commission meeting.



## STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(2), this statement provides information on the intended action to amend a rule.

### Legal Authority

ORS 468.305 and Federal Clean Air Act as Amended 1977 (PL 95-95).

### Need for the Rule

The proposed revision to the Salem ozone control strategy is in response to EPA conditions of approval of the June, 1979 SIP. The EPA suggested that the ozone control strategy conform to EPA's rural ozone policy. The proposed revision is in accordance with the rural ozone policy.

### Principal Documents Relied Upon

1. Clean Air Act Amendments of 1977, PL 95-95, 8/7/77.
2. Rhoads, Richard (memo dated May 4, 1979), Need for Emission Offsets in Rural Ozone Nonattainment Areas.
3. Federal Register of January 21, 1980, pages 3929 to 3938.
4. OAR 340-22-100 to 340-22-220 relating to Volatile Organic Compounds.
5. OAR 340-20-240(1) relating to Lowest Achievable Emission Rate.
6. Oregon Air Quality report 1978, by State of Oregon, Department of Environmental Quality (DEQ).

### Fiscal Impact Statement

The proposed Rule change imposes no additional fiscal impact. However, the cost data for this revision have been updated. The VOC Rules are estimated to have a lumped cost of \$304,000 which includes all existing VOC sources covered by these Rules in the Salem Nonattainment Area. The costs of LAER depend upon the nature of the particular controlled source. As a possible example of LAER, "Volume VI: Surface Coating of Miscellaneous Parts and Products," EPA Guideline Series, EPA - 450/2-78-015, shows that thermal incineration control for a large new or modified VOC source would require a \$1.9 million investment, based on 1977 dollars. For the 1979-1981 Biennium, the Department of Environmental Quality has allocated approximately 1.7 Full Time Equivalent for monitoring and implementation.

# Affidavit of Publication

STATE OF OREGON, }  
County of Marion } ss.

Head Office  
Dept. of Environmental Quality

RECEIVED  
JUL 14 1980

**NOTICE OF PUBLIC HEARING**  
on the Salem Ozone Air Quality Control Strategy  
The Department of Environmental Quality will hold a public hearing on Monday, August 4, 1980, at 10:30 a.m. in the DEQ headquarters, 522 SW Fifth, Room 511, Portland, to accept comments on proposed revisions to the Salem OZONE control strategy. The proposed revisions respond to the U.S. Environmental Protection Agency's conditions of approval of the State Implementation Plan control strategy adopted in June, 1979, and reflect EPA's rural ozone policy.  
Copies of the proposed ozone control strategy may be obtained from Howard Harris, DEQ Air Quality Division, Box 1760, Portland, OR 97207, 229-6086; or from the Salem Regional Office at 1085 - 25th, S.E., 378-8240. Written comments may be sent to Mr. Harris at the above Portland address, and should be received by August 4, 1980.

SJ JULY 4, 1980

I, Lela McAllister, being first duly sworn, depose and say that I am the principal clerk of The Oregon Statesman  of The Capital Journal  , a newspaper of general circulation as of The Statesman Journal  defined by sections 193.010 to 193.110, Oregon Revised Statutes; printed and published at Salem in the aforesaid county and state; that the, Salem Ozone Air Quality Control

a printed copy of which is hereby annexed, was published in the entire issue of said newspaper for one successive and consecutive times in the following issues: July 4, 1980.

*Lela M. McAllister*

Subscribed and sworn to me this 7 day of July, 1980.

*Kevin A. Wallace*

Notary Public for Oregon

My Commission expires 4/29/81



# OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

## NOTIFICATION OF INTENT TO APPLY FOR FEDERAL AID

For Internal Use Only		1-8] PNRS #				Page One												
02	12]	APPLICANT Department of Environmental Quality				45]	46]	DIVISION Air Quality		79]								
03	12]	APPLICANT ADDRESS P. O. Box 1760		STREET		45]	46]	CITY Portland	60]	76]	ZIP 97207	80]						
04	12]	CONTACT PERSON Howard Harris		45]	46]	AREA CODE 503	48]	49]	PHONE 229-6086	55]	56]	EXTENSION 	59]					
01	12]	PROJECT TITLE Salem Ozone Control Strategy										71]						
11	12]	PROJECT LOCATION—CITY			PROJECT LOCATION—COUNTY Marion			PROJECT LOCATION SEC: T: R:				79]						
05	SUMMARY PROJECT DESCRIPTION (ATTACH SUPPORTING DOCUMENTS AS NECESSARY—SEE INSTRUCTIONS ON BACK)																	
06	12]	The Department of Environmental Quality is proposing to revise the ozone air										71]						
07	12]	quality control strategy for the City of Salem Nonattainment Area. The proposed										71]						
08	12]	revisions respond to the U. S. Environmental Protection Agency's conditions of										71]						
09	12]	approval of the State Implementation Plan Control Strategy adopted in June, 1979										71]						
10	12]	and reflect EPA's rural ozone policy.										71]						
12	AMOUNT REQUESTED—FEDERAL FUNDS		NON-FEDERAL MATCHING FUNDS				OTHER		TOTAL									
	12]	(A) Grant	[19]	[20]	(B) Other	[27]	[28]	(C) State	[35]	[36]	(D) Local	[43]	[44]	(E) FUNDS	[51]	[52]	(F) FUNDS	[60]
13	12]	TYPE OF OTHER FEDERAL FUNDS (See 12B)				45]	46]	TYPE OF OTHER NON-FEDERAL FUNDS (See 12E)					79]					
14	12]	FEDERAL PROGRAM TITLE										71]						
15	12]	FEDERAL AGENCY NAME U. S. Environmental Protection Agency				45]	46]	FEDERAL SUB-AGENCY NAME					79]					
17	(A) TYPE OF APPLICANT: (Check (X) the single most applicable box)																	
		STATE	INTER-STATE	COUNTY	CITY	SCHOOL DISTRICT	SPECIAL DISTRICT	COMMUNITY ACTION	SPONSORED ORGANIZATION	OTHER								
		<input checked="" type="checkbox"/> 12	<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15	<input type="checkbox"/> 16	<input type="checkbox"/> 17	<input type="checkbox"/> 18	<input type="checkbox"/> 19	<input type="checkbox"/> 20								
	(B) TYPE OF ACTION: (Check (X) as many boxes as apply to this action)																	
		NEW GRANT	CONT. GRANT	SUPPLT GRANT	INCREASE DURATION	DECREASE DURATION	CANCELLATION		INCREASE DOLLARS	DECREASE DOLLARS								
		<input type="checkbox"/> 21	<input type="checkbox"/> 22	<input type="checkbox"/> 23	<input type="checkbox"/> 24	<input type="checkbox"/> 25	<input type="checkbox"/> 26		<input type="checkbox"/> 27	<input type="checkbox"/> 28								
	(C) HAS DISTRICT CLEARINGHOUSE BEEN NOTIFIED?				(D) REVIEW REQUIRED by A-95		(E) ENVIRONMENTAL IMPACT		(F) HOUSING RELOCATION REQUIRED									
		Yes	No	Date:	Yes	No	Yes	No	Yes	No								
		<input checked="" type="checkbox"/> 29	<input type="checkbox"/> 30	July 3, 1980	<input checked="" type="checkbox"/> 31	<input type="checkbox"/> 32	<input type="checkbox"/> 33	<input checked="" type="checkbox"/> 34	<input type="checkbox"/> 35	<input checked="" type="checkbox"/> 36								
	(G) ESTIMATED APPLICATION FILING DATE:				41]	MONTH	[42]	[43]	DAY	[44]	[45]	YEAR	[46]					
						July			3			1980						

## ADDITIONAL INFORMATION—ALL APPLICANTS

I. A. Is the project consistent with the city or county comprehensive plan, zoning and subdivision ordinance? No  Yes

I. B. Is the proposal consistent with statewide land use goals? No  Yes

I. C. Is the proposal consistent with state and regional plans? No  Yes

II. Will the project have an impact on a neighboring jurisdiction? No  Yes

If so, is the project consistent with the comprehensive plan for that jurisdiction? No  Yes

III. Explain deviations if any, from pertinent plans:

None

IV. Federal Catalog number (or Public Law no. and title) PL 95-95 Clean Air Act

V. Has funding agency been notified? N/A No  Yes  Date: \_\_\_\_\_

VI. If project includes state funds (12C), identify agency N/A

### STATE AGENCIES ONLY

VIII. (a) IS PROGRAM BUDGETED  NON-BUDGETED

(b) STATE SHARE

GENERAL FUND CASH

OTHER FUND CASH

IN KIND

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

(c) FUNDING METHOD

FEDERAL SHARE

STATE SHARE

TOTAL

First Year % \_\_\_\_\_ \$ \_\_\_\_\_ % \_\_\_\_\_ \$ \_\_\_\_\_ % \_\_\_\_\_ \$ \_\_\_\_\_

Second Year % \_\_\_\_\_ \$ \_\_\_\_\_ % \_\_\_\_\_ \$ \_\_\_\_\_ % \_\_\_\_\_ \$ \_\_\_\_\_

Third Year % \_\_\_\_\_ \$ \_\_\_\_\_ % \_\_\_\_\_ \$ \_\_\_\_\_ % \_\_\_\_\_ \$ \_\_\_\_\_

(d) WILL PROGRAM REQUIRE HIRING OF NEW STATE EMPLOYEES? No  Yes  Number \_\_\_\_\_

(e) Will accounting for this grant be administered by the Executive Dept. Accounting Division? Yes  No

PLEASE ATTACH ANY ADDITIONAL NARRATIVE OR REMARKS



# Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

July 3, 1980

- Kay Wilcox  
A-95 Clearinghouse  
155 Cottage Street NE  
Salem, OR 97301

Re: Salem Ozone Control Strategy

Gentlemen:

Enclosed is a copy of the background material and proposed regulations for control of ozone air pollution in the Salem Nonattainment Area.

The proposed regulations are being submitted to you for a 45-day review process as per the Environmental Protection Agency's rule, 40 CFR Part 51, published in the Federal Register, Volume 44, Number 118 on June 18, 1979.

Please forward all comments to:

Howard Harris  
Department of Environmental Quality  
Air Quality Division  
P.O. Box 1760  
Portland, OR 97207

If you have any questions regarding these regulations, please contact Mr. Harris at 229-6086.

Sincerely,

Marianne Fitzgerald  
Air Quality Division

MEF:w  
AW172  
Enclosure



# Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

July 3, 1980

- Allen Hershey, Director  
Mid-Willamette Valley Council  
of Governments  
220 High Street NE, Rm 400  
Salem, OR 97301

Re: Salem Ozone Control Strategy

Gentlemen:

Enclosed is a copy of the background material and proposed regulations for control of ozone air pollution in the Salem Nonattainment Area.

The proposed regulations are being submitted to you for a 45-day review process as per the Environmental Protection Agency's rule, 40 CFR Part 51, published in the Federal Register, Volume 44, Number 118 on June 18, 1979.

Please forward all comments to:

Howard Harris  
Department of Environmental Quality  
Air Quality Division  
P.O. Box 1760  
Portland, OR 97207

If you have any questions regarding these regulations, please contact Mr. Harris at 229-6086.

Sincerely,

Marianne Fitzgerald  
Air Quality Division

MEF:w  
AWL72  
Enclosure



State Clearinghouse  
 Intergovernmental Relations Division  
 155 Cottage Street N.E.  
 Salem, Oregon 97310

Phone (503) 378-3732 or Toll Free in Oregon 1-800-452-7813

Applicant: DEQ

Project Title: Salem Ozone Control Strategy

Date Rcd. July 8, 1980

PNRS # 8007 6 410

Your project notice has been assigned the file title and number that appear above. Please use it in correspondence and if applicable enter it in Block 3A on the 424 form for the project. Your project notice must also be submitted for review to any affected areawide clearinghouse.

a. FEDERAL GRANTS

Initial 30 day review of your notice of intent to apply for grant funds began on above date

30 day review of your final grant application began on the above date.

b. HUD HOUSING

Initial 30 day review began on the above date

c. DIRECT FEDERAL DEVELOPMENT

Initial 30 day review

d. ENVIRONMENTAL IMPACT STATEMENT

Initial 45 day review of draft EIS began on above date.

30 day review of final EIS began on the above date

e. STATE PLAN/AMENDMENT

45 day review began on above date.

Your project notice was circulated to state agencies checked below

ECON DEVELOPMENT & CONSUMER SVCS.

- Agriculture
- Economic Development
- Fire Marshal
- Housing
- Labor
- Real Estate

EDUCATION

- Education
- Higher Education
- Educ Coordinating

EXECUTIVE

- Budget

HUMAN RESOURCES

- Elderly Affairs
- Children's Services
- Community Services
- Corrections
- Employment
- Health
- Mental Health
- Vocational Rehabilitation
- Adult & Family Services

NATURAL RESOURCES

- Governor's Office
- DEQ
- Fish and Wildlife
- Forestry
- Geology
- Lands
- Soil & Water
- Water Resources

TRANSPORTATION

- Director
- Highway Division
- Parks Division
- Public Transit
- Aeronautics

MISCELLANEOUS

- Extension Service
- Health Plng & Dev. Agcy.
- LCDC
- Law Enforcement
- Energy
- Historic Preservation
- Other

State Clearinghouse use only:

St. Agcy. Due Date \_\_\_\_\_

Fed Agency \_\_\_\_\_

County \_\_\_\_\_

VICTOR ATIYEH  
GOVERNOR



OFFICE OF THE GOVERNOR  
STATE CAPITOL  
SALEM, OREGON 97310

August 5, 1980

Mr. Howard Harris  
Air Quality  
Dept. of Environmental Quality  
P. O. Box 1760  
Portland, OR 97207

RE: SALEM OZONE CONTROL STRATEGY  
PNRS 8007 6 410

Thank you for the opportunity to review your state plan.

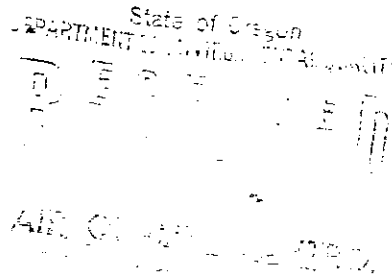
This plan was circulated for review among appropriate state agencies. No significant conflicts with state policies or programs were identified.

I am pleased to add my endorsement as required by OMB A-95, Part III.

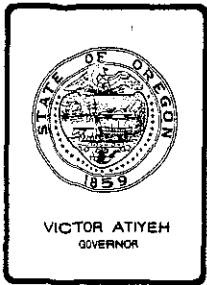
Sincerely,

Victor Atiyeh  
Governor

VA:wh







# *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

## MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. R, September 19, 1980, EQC Meeting

Proposed Amendments to the Administrative Rules for Solid Waste Management (OAR Chapter 340, Division 61)

### Background and Problem Statement

Senate Bill 925 (Chapter 773, Oregon Laws, 1979) requires the Commission to adopt rules regarding state siting of landfills in the following three areas:

1. To establish a procedure for local government units to request assistance from the Department in the establishment of landfill disposal sites under Section 3 and to give notice of such requests.
2. To establish a procedure for obtaining public comment on determinations of need for landfill sites made by the Commission.
3. To provide for public hearings in the area affected by a proposed landfill disposal site to be established by the Department under Section 4.

Comments in this memorandum are directed mainly at Item No. 1.

The Statement of Need and Fiscal Impact Statement for this rulemaking are attached (Attachments I and II).

### Alternatives and Evaluation

The alternatives available in the application for assistance and siting a landfill are the ranges of pre-application requirements. This could vary from a simple letter request with no background information to an elaborate procedure with multiple requirements.

The draft rules were developed with the aid of a citizen task force. During the task force meetings there was considerable disagreement on how complex the application procedure should be.



Contains  
Recycled  
Material

A public hearing was held on April 21, 1980, in Portland (Attachment III). Four persons attended. Three of the four testified with all testimony directed against OAR 340-61-021(2)(e)(A through C). Written statements were also submitted by two of the three persons testifying.

As a result of the public hearing, the task force was reconvened to explore alternative language acceptable to those persons objecting.

Following is the portion of the Proposed Rules objected to:

- (e) The local government has carried out an acceptable process for landfill siting (with technical assistance from the Department if requested) including a minimum of the following:
  - (A) Alternative sites have been identified and ranked as to probable acceptability based upon information sufficient to establish preliminary feasibility of each site.
  - (B) Information has been gathered on at least the two top ranked sites sufficient to satisfy the requirements of the "Feasibility Study Report" provided for in OAR 340-61-030. Certain requirements of the "Feasibility Study Report" may be waived for the purposes of this section, by the Department upon a demonstration of prohibiting cost or legal constraint.
  - (C) A public participation process, including the use of a citizen's advisory committee, has been carried out in the siting effort, with public meetings and/or hearings held on the candidate sites.

Major objection was that by requiring work to be done on alternative sites, costs to local governments and/or private operators would be greatly increased.

During the task force meeting held May 22, 1980, wording acceptable to the objectors was developed as follows:

- (e) The local government has carried out a process for landfill siting (with technical assistance from the Department if requested) including a minimum of the following:
  - (NEW) (A) Alternative sites have been reviewed and ranked as to adequacy and probable acceptability based upon locally developed criteria and applicable laws and regulations.
  - (NEW) (B) Information has been gathered on at least the top ranked site sufficient to satisfy the requirements of the "Feasibility Study Report" provided for in OAR 340-61-030. Certain requirements of the "Feasibility Study Report" may be waived, for the purpose of this section, by the Department upon a demonstration of prohibitive cost or legal constraint.

- (NEW) (C) A public participation process, including the use of a citizens advisory committee or other approach which provides for public access, review and input has been carried out in the siting process.
- (3) The Department shall give reasonable public notice of each such request, including the prompt publication of a summary of such request in the Secretary of State's Bulletin.
- (NEW) (4) Requests for siting under Section 3 of Chapter 773, Oregon Laws, 1979, will be reviewed by the Commission, and written findings as to the acceptability of the process under (2) (e) will be prepared. Should the process be found incomplete, the Commission may request the Department or the local government to complete the process.

A second public hearing was held on September 3, 1980 (Attachment IV) to take testimony on the land use implications of the proposed rules. No written or oral testimony was submitted.

#### Summation

- (1) The 1979 legislature enacted Senate Bill 925 (Chapter 773, Oregon Laws, 1979), which required adoption of rules in three areas.
- (2) The proposed changes to OAR Chapter 340, Division 61, outline procedures for accomplishing application for siting and for public hearings.
- (3) The subject rules have been amended with minor word changes to address the concerns raised at a public hearing.

#### Director's Recommendation

Based upon the Summation, it is recommended that the Commission adopt the amendments to OAR Chapter 340, Division 61.

William H. Young *AS for*

- Attachments:
- I. Statement of Need for Rulemaking
  - II. Fiscal Impact Statement
  - III. Hearings Officer's Report - April 21, 1980
  - IV. Hearings Officer's Report - September 3, 1980
  - V. Response to Public Comment
  - VI. Proposed Amendments to Division 61

Robert L. Brown:dro  
229-5157  
September 5, 1980

STATEMENT OF NEED FOR RULEMAKING

The Environmental Quality Commission intends to adopt the Solid Waste Management rule amendments, OAR Chapter 340, Section 61-005 to 61-085.

(1) Legal Authority,

Chapter 773, Oregon Laws, 1979.

(2) Need for Rule.

The proposed amendments are needed to establish policy regarding state assistance in landfill siting, provide a procedure for local government to request assistance and to provide for public hearings to determine need and inform persons in areas affected by proposed landfills.

(3) Documents Relied Upon.

No documents, as of this date other than the recent legislation.

Robert L. Brown:p  
229-5157  
September 5, 1980

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION  
OF THE STATE OF OREGON

In the Matter of Adoption of )  
Amendments to the Solid Waste ) FISCAL IMPACT STATEMENT  
Management Rules, OAR) Chapter 340, )  
Section 61-006 to 61-085 )

The Environmental Quality Commission intends to adopt the Solid Waste Management rule amendments, OAR Chapter 340, Section 61-005 to 61-085.

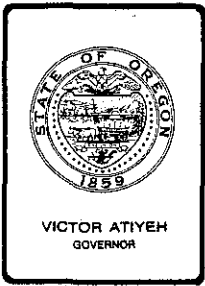
Agency costs in implementing the proposed rule could include any or all of the following:

1. Review and processing of applications could be handled in the normal office routine unless complications arose. In that case, up to 0.25 staff positions could be used.
2. Field work and possible hiring of consultants could be involved in technical assistance and actual siting of landfills. This could range as high as one full time employee and consulting contracts up to \$30,000 for each application.
3. Should the Department be required to do the actual construction and assume operation of a disposal site, costs could range to above \$500,000. Money would initially come from pollution control bond fund and be repaid by a schedule of user fees established by the Commission.

Local government requesting assistance under OAR 340-61-021 will be required to have used an acceptable process in site search. Such a process may cost an average applicant \$25,000 to \$50,000. Grants are available from the Department for planning to cover the above costs and would be recoverable by use of a user fee after establishment of a landfill.

The general public, either through user charges, property taxes, or other rates, will eventually repay the above costs. This will increase their costs over what is presently paid. It is estimated that collection costs, for disposal, may increase as much as \$.50 to \$1 per month per 30-gallon can.

The above estimates are based on an examination of current consulting contracts, construction either present or recently completed, and planning estimates of effect on rates done by local jurisdictions.



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207  
522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

TO: Environmental Quality Commission

FROM: Robert L. Brown, Hearings Officer

SUBJECT: Proposed Rule Making Pursuant to Senate Bill 925  
Report of Public Hearing  
April 21, 1980

On April 21, 1980, a public hearing was held pursuant to a notice issued March 17, 1980. The hearing was held in Portland at 1 p.m. in Room 511 of the Department's offices at 522 Southwest Fifth.

Four persons were present. Following an explanation of the purpose of the meeting, three (Gordon Fultz, representing the Association of Counties, Roger Emmons, representing Oregon Sanitary Service Institute, and Angus MacPhee, representing the landfill industry), gave testimony.

All testimony was directed in objection to the application requirements (OAR 340-61-021(2)(e)(A through C)). Major points were as follows:

1. Language is too restrictive to allow local governments to apply.
2. Commission has no legal authority to adopt section.
3. Excessive costs to local government.
4. All of the section should be deleted.
5. Section places an undue burden on local government. Legislation was intended to be an escape hatch rather than another layer of government regulations.

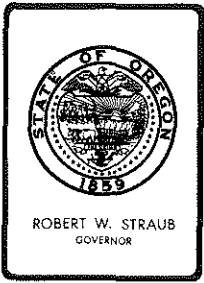
All other sections of the rules were supported.

There being no other verbal testimony, the record was left open until April 22, 1980, for receipt of written comments.

Robert L. Brown:p  
229-5157



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Materials



Attachment IV  
Agenda Item No. R  
September 19, 1980 EQC Meeting

## *Environmental Quality Commission*

POST OFFICE BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

### MEMORANDUM

TO: Environmental Quality Commission

FROM: Valerie Lee, Hearings Officer

SUBJECT: Proposed Rule Making Pursuant to ORS 459 (Senate Bill 925)  
Report of Public Hearing  
September 3, 1980

On September 3, 1980, a public hearing was held pursuant to a notice issued August 15, 1980. The hearing was held in Portland at 1 p.m. in Room 4A of the Department's offices at 522 Southwest Fifth Avenue.

No written or verbal testimony was submitted. The record was left open until September 3, 1980, 5 p.m., for receipt of written comments.



Contains  
Recycled  
Materials

Valerie A. Lee:dro  
229-6044  
9/5/80

RESPONSE TO PUBLIC COMMENT

Attached is a summary of comments received in response to the April 21, 1980, public hearing on proposed amendments to administrative rules for Solid Waste Management (OAR Chapter 340, Division 61).

Comment

All public comment was directed toward objections to OAR 340-61-021(2) (e) (A through C).

Response

As a result of public testimony, Department staff meet with the task force which had assisted in original draft rules. The meeting was held on May 22, 1980. At the meeting, the proposed rule was amended to alleviate the concerns of those testifying at the public hearing.

Persons Submitting Comments

Gordon Fultz  
(Task force member)

Association of Oregon Counties  
PO Box 2051  
Salem, OR 97308

Roger Emmons  
(Task force member)

Oregon Sanitary Services Institute  
4645 - 18th Place, S.  
Salem, OR 97302

Angus MacPhee

Disposal Industries, Inc.  
Newberg, Oregon

Robert L. Brown:p  
229-5157



PROPOSED REVISION TO OREGON ADMINISTRATIVE RULES, CHAPTER 340,  
SOLID WASTE MANAGEMENT

Policy

OAR 340-61-015. Whereas inadequate solid waste collection, storage, transportation, recycling and disposal practices cause nuisance conditions, potential hazards to public health and safety and pollution of the air, water and land environment, it is hereby declared to be the policy of the Department of Environmental Quality to require effective and efficient solid waste collection and disposal service to both rural and urban areas and to promote and support comprehensive county or regional solid waste management planning, utilizing progressive solid waste management techniques, emphasizing recovery and reuse of solid wastes and insuring highest and best practicable protection of the public health and welfare and air, water and land resources. In keeping with the Oregon policy to retain primary responsibility for management of adequate solid waste programs with local government units (ORS 459.015) and the Environmental Quality Commission's perception of Legislative intent under Chapter 773, Oregon Laws 1979, the Commission will look for, and expect, the maximum participation of local government in the planning, siting, development and operation of needed landfills. It is expected that local government will have carried out a good faith effort in landfill siting, including but not limited to public participation and Department assistance, before requesting the Department to site the landfill. Local government will be expected to assume or provide for responsibility in the ownership and operation of any Department/Commission sited landfill under anything but an extraordinary circumstance.

Request for Assistance

OAR 340-61-021

- (1) Applications for requests for assistance in siting landfills under ORS 459.047 shall be in the form of a letter signed by the governing body of the city or county with attachments as necessary to fully describe the need and justification for the request, need for the site as outlined in the Department approved Solid Waste Management Plan and types of assistance required.
- (2) When the request for assistance includes Department siting of the landfill under ORS 459.047 exhibits and information shall be submitted which document the following:
  - (a) The local government has an adopted, Department approved Solid Waste Management Plan which identifies the need for a landfill.
  - (b) The local government has re-evaluated the plan in consultation with the Department and has confirmed that siting a landfill in the immediate future is still needed.
  - (c) An explanation of why the local government is unable to proceed successfully to site the landfill, including a discussion of progress to date and the obstacles to be overcome.

- (d) All pertinent reports, plans, documents and records relative to the siting process to date will be made available to the Department at the Department's request.
- (e) The local government has carried out a process for landfill siting (with technical assistance from the Department if requested) including a minimum of the following:
  - (A) Alternative sites have been reviewed and ranked as to adequacy and probable acceptability based upon locally developed criteria and applicable laws and regulations.
  - (B) Information has been gathered on at least the top ranked site sufficient to satisfy the requirements of the "Feasibility Study Report" provided for in OAR 340-61-030. Certain requirements of the "Feasibility Study Report" may be waived, for the purpose of this section, by the Department upon a demonstration of prohibitive cost or legal constraint.
  - (C) A public participation process, including the use of a citizens advisory committee or other approach which provides for public access, review and input has been carried out in the siting process.
- (3) The Department shall give reasonable public notice of each such request, including the prompt publication of a summary of such request in the Secretary of State's Bulletin.
- (4) Requests for siting under ORS 459.047 will be reviewed by the Commission and written findings as to the acceptability of the process under Subsection (2)(e) will be prepared. Should the process be found incomplete, the Commission may request the Department or the local government to complete the process.

Public Comment to Determine Need

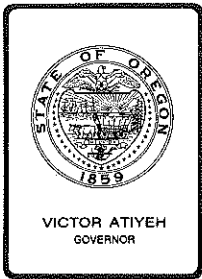
340-61-022

Prior to the Commission making a determination of need for any landfill site under ORS 459.049 the Department shall give prior reasonable public notice of, and hold a public informational hearing on, the need for the landfill site.

Public Hearing in Area Affected by Proposed Site

340-61-023

Prior to siting a landfill under ORS 459.049 the Department shall give prior reasonable public notice of and hold a public informational hearing in the area affected by the proposed site.



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. S, September 19, 1980, EQC Meeting

Proposed Amendments to the Administrative Rules for Solid Waste Management (OAR 340, Division 61)

### Background and Problem Statement

ORS 459.055 requires that under specific circumstances the Department is to require local government to prepare a waste reduction program. It further requires that the Department review those programs and that the Department prepare a report to the legislature on the effectiveness of such programs. These rules define the criteria set out in ORS 459.055. They are also intended to apply to the requirements for waste reduction programs under ORS 468.220. These rules are meant to be used to:

1. Assist local government and other persons in development, implementation and evaluation of waste reduction programs.
2. Assist the Department and Commission in evaluation of local government waste reduction programs.
3. Serve as a basis for the Department's report to the legislature on:  
(a) the level of compliance with waste reduction programs, (b) the number of programs accepted and rejected and why, and (c) the recommendations for further legislation.

The Statement of Need and Fiscal Impact Statement for this rulemaking are attached (Attachments I and II).

### Alternatives and Evaluation

The draft rules were developed with the aid of a citizen task force which considered various levels of requirements in development and implementation of waste reduction programs. The task force chose to stay with the general direction provided in the ORS 459.055 criteria. Proposed rules were developed which provide the greatest room for regional variation and local jurisdiction innovation in the actual program design and implementation.



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The rules provide a format for evaluation of the design and for reporting on the options considered and chosen by local government. The task force was in consensus on the guidelines which are now being proposed as rules.

The guidelines were circulated to the public for comment and have been utilized in the early stages for waste reduction program preparation by several local governments. They were again circulated to the public as proposed rules. Some comments and suggested changes were received on the proposed rules.

A public hearing was held on September 3, 1980, in Portland. (Attachment III). Written comments from nine persons were received on the guidelines and proposed rules prior to the meeting and were entered into the hearing record and considered. Eight persons attended the hearing and five persons testified.

The testimony at the hearing was of mixed content. Most was in support, some with suggestions for specific emphasis or content changes. Two submittals were in general opposition to the rules, indicating that rules were not necessary and that the criteria in ORS 459.055 were adequate. Some attention was addressed to the Fiscal Impact Statement (Attachment II). There was concern over the cost to local government and the Department, particularly the potential need for additional staff and dollar resources at the DEQ. Several individuals also stressed the need for market development and technical assistance from the Department staff.

A response to public comments is attached (Attachment IV).

Written statements were also submitted by two persons.

As a result of written comments and the public hearing, the following changes were made in the proposed rules.

1. Section 340-61-110(1)(a) relating to commitment by local government to waste reduction programs was rewritten to clarify the intent.
2. Section 340-61-110(4)(b) relating to reporting of public participation in waste reduction programs development was added.
3. Section 340-61-110(2)(a)(C) relating to the use of a phased-in waste reduction program and requiring a report of the timeline and need for a phase-in process was added.

#### Summation

- (1) ORS 459.055 (Senate Bill 925, Chapter 773, Oregon Laws, 1979) requires under certain conditions that local government develop a waste reduction program. It further requires the Department to review these programs before providing some type of assistance and to report on the effectiveness of these programs to the legislature.
- (2) The proposed additions to OAR Chapter 340, Division 61, outline the procedure for local government to develop a waste reduction program.

- (3) The subject rules, original guidelines, have been amended without major changes to address the concerns raised at a public hearing and by written comments.

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt the amendments to OAR Chapter 340, Division 61.

William H. Young *RS for*

Attachments:

- I Statement of Need For Rulemaking
- II Fiscal Impact Statement
- III Hearing Officer's Report
- IV Response to Public Comments
- V Proposed Amendments to Division 61

William R. Bree:f  
229-6975  
August 29, 1980

SS61

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION  
OF THE STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY )  
of the STATE OF OREGON, )  
In the Matter of the Adoption of )  
Amendments to the Solid Waste ) STATEMENT OF NEED  
Management Rules, OAR Chapter 340, )  
Section 61-100 to 61-110 )

The Environmental Quality Commission intends to adopt the Solid Waste Management rule amendments, OAR Chapter 340, Section 61-100 to 61-110.

A. Legal Authority, ORS 459.055(2) and ORS 468.220.

B. Need for Rule.

The proposed amendments are needed to establish policy regarding development of waste reduction programs as required under ORS 459.055(2) and ORS 468.220.

C. Documents Relied Upon. ORS 459.055(2); ORS 468.220; memo to the House Interim Committee on Energy and Environment from the Legislative Research Committee, March 11, 1980, "Senate Bill 925, Legislative Intent of Section 8a," Attorney General's letter opinion, April 17, 1980.

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION  
OF THE STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY )  
of the STATE OF OREGON, )  
 )  
In the Matter of Adoption of )  
Amendments to the Solid Waste ) FISCAL IMPACT STATEMENT  
Management Rules, OAR Chapter 340, )  
Section 61-100 to 61-110 )

The Environmental Quality Commission intends to adopt the Solid Waste Management rule amendments, OAR Chapter 340, Section 61-100 to 61-110, to satisfy the requirements of ORS 459.055(2) and ORS 468.220.

Agency costs in implementing the proposed rule could include any or all of the following:

1. Review and processing of applications could be handled in the normal office routine unless complications arose. In that case, up to 0.25 staff positions could be used.

2. Field work and possible hiring of consultants could be involved in technical assistance to local governments or their agents. This could range as high as one full time employe and consulting contracts up to \$10,000 for each application.

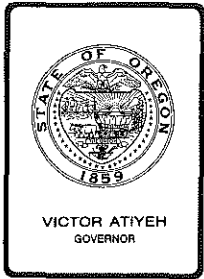
Any local government which sites a landfill in an exclusive farm use zone under ORS 459.005, requests assistance from the Department under ORS 459.047, has DEQ/EQC site a landfill under ORS 459.049, or receives funds for the planning or disposal of solid waste under ORS 468.220, will be required to develop and implement an acceptable waste reduction program. Such a program may cost an average applicant \$10,000 to \$20,000. Grants or loans are available from the Department for planning to cover the above

1 costs and would be recoverable as part of a user fee established to finance  
2 solid waste management activities.

3 A waste reduction program may include the establishment of recycling  
4 collection centers or a source separation collection system. The general  
5 public, either through user charges, property taxes or other rates will  
6 eventually pay the costs of these programs and repay the above costs.  
7 This will increase their costs over what is presently paid. It is  
8 estimated that collections costs for disposal may increase as much as  
9 \$.25 to \$.50 per month per 30-gallon can or \$.10 to \$.25 per cubic yard  
10 for disposal at a landfill.

11 The above estimates are based on an examination of current consulting  
12 contracts and actual and projected costs for similar activities.





## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

Attachment III

Agenda Item S

September 19, 1980, EQC Meeting

### MEMORANDUM

**To:** Environmental Quality Commission

**From:** Valerie Lee, Hearings Officer

**Subject:** Proposed Rulemaking Related to ORS 459.055 Waste Reduction Programs, September 3, 1980

On September 3, 1980, a public hearing was held pursuant to a notice issued August 5, 1980. The hearing was held in Portland at 1:00 p.m. in Room 4A of the Department's offices at 522 Southwest Fifth.

Eight persons were present. Following an explanation of the purpose of the meeting, there was a presentation by staff of the comments received to date with the proposed changes in response to those comments. The following individuals presented testimony:

Gerald A. Woodward, Tillamook County Commissioner; Dan Burda, Saturn Shredders; Tom Donaca, Associated Oregon Industries; Roger Emmons, Oregon Sanitary Service Institute; and Gordon Fultz, Associated Oregon Counties.

Along with minor additions or changes which were suggested, the following major issues were raised.

1. The rules are unnecessary, red tape, the criteria in SB 925 are adequate. There should be a one paragraph statement of what is needed. These rules are setting up new standards and requirements which are going to be the basis of law suits in opposition to unpopular landfill siting efforts.
2. The rules do not quantify the minimum level of effort a local government can provide to guarantee that it has an acceptable program.
3. The rules do not quantify minimum standards based on geographic conditions.
4. The rules will be a "sham" if the Division does not develop its own waste reduction program.
5. There needs to be a commitment from the Department to follow through with market development and technical assistance for local government.



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Materials

6. The Division should make an annual report on the progress of waste reduction as part of its annual report on solid waste management.
7. There is a need for a variance procedure from individual portions of these rules.

All other sections of the rules were supported. There was also testimony both in general support and general opposition of the rules and in support of specific portions of the rules. There being no other verbal testimony, the record was left open until September 4, 1980, for receipt of written comments.

Valerie Lee  
229-5913  
September 4, 1980

Response to Public Comment

Attached is a summary of comments received in response to the September 3, 1980, public hearing on proposed amendments to administrative rules for Solid Waste Management (OAR Chapter 340, Division 61)

Comment: Relating to the Fiscal Impact Statement - Where will local government get the money to plan? Are grants available from the Department for planning?

Response: Waste reduction program planning and implementation will be viewed as a normal solid waste management activity and will be eligible for the same types of funding. The Fiscal Impact Statement could more accurately state that funds are available "with legislative approval."

Comment 340-61-100 The rules lack flexibility and will act as a roadblock to orderly solid waste management. A variance procedure is needed.

Response: 340-61-080 provides a variance procedure from these rules.

Comment: 340-61-100(1) The Department must develop its own waste reduction program if it wants to assist the cities and counties. Local government waste reduction programs will be a "sham" if the DEQ does not have a statewide program.

Response: Waste reduction activities are a part of the Division's Goals and Objectives. A separate waste reduction program is not planned.

Comment: 340-61-100(1) These rules should be broadened to cover all solid waste management activities.

Response: This concept would be beyond the intent of ORS 459.055 and was not included.

Comment: 340-61-100(1) Slight wording clarification suggested.

Response: Slight change was made to accommodate the intent of suggestion.

Comment: 340-61-100(2) Slight wording clarification suggested.

Response: Change was unnecessary, no change was made.

Comment: 340-61-100(2) Suggestion that the requirement for a waste reduction program related to landfill permits be dropped.

Response: This change would be in conflict with the intent of ORS 459.055 and was not included.

Comment: 340-61-100(3) These guidelines were written for urbanized areas and will be viewed as more "red tape" and will be ignored by smaller jurisdictions. These rules are needlessly involved. The basic criteria in SB 925 are adequate in themselves to give direction to mandated waste reduction. The guideline approach was better in that it gave you an idea without specifics on how to carry out a program. These rules set up standards and requirements which are going to be used as the basis of law suits in opposition to unpopular landfill siting efforts.

Response: These rules were written in the form of reporting requirements to allow the greatest flexibility for alternatives in program design and implementation, based on regional and local differences.

Comment: 340-61-100(3)(aaa) Suggested new language indicating these rules contain procedure for setting out a waste reduction program.

Response: Such procedures are not in the rules. New language was not used.

Comment: 340-61-100(3)(aa) Suggested new language setting a two-week review time limit on the Department.

Response: Such a time limit would be an expansion on the present ORS 459.055 criteria. New language was not used.

Comment: 340-61-100(3)(6) Recommended that as an administrative practice, the Division make a report on the progress of waste reduction activities as a part of the Annual Report.

Response: Waste reduction program activities will be reported in the same manner as other solid waste management activities.

Comment: 340-61-100(3)(c) How will the Department report to the legislature when there may be no programs in place by 1981?

Response: The Department will report on all activities related to waste reduction programs and to these rules and the previous guidelines.

Comment: 340-61-110 DEQ should establish some quantitative guidelines. Without quantitative guidelines, DEQ will be refereeing disputes between supporters and opponents of waste reduction submitted for review. DEQ should encourage the greatest level of private industry participation in development of waste reduction programs. DEQ should discourage the use of private consultants to prepare waste reduction programs which will not have a commitment from local government. DEQ should set regional or geographic standards in the law. DEQ should set a quantified minimum level of performance which will guarantee acceptance of a program.

Response: DEQ has established broad rules to allow for the maximum local government innovation and to accommodate local and regional differences. DEQ will evaluate all of the waste reduction programs and reports to the legislature on any need for further legislation including the need for quantitative criteria. The rules neither require nor limit the use of private industry participation or the participation of private consultants. They do require local government to state their level of commitment to the waste reduction program.

Comment: 340-61-110(1) (a) Suggested wording clarification.

Response: Change made with no impact on intent.

Comment: 340-61-110(1) (a) Suggestion to strike the existing language and change the intent.

Response: Wording was changed to clarify the intent.

Comment: 340-61-110(1) (b) (A) Suggested wording change.

Response: Change unnecessary, no change made.

Comment: 340-61-110(1) (b) (B) Suggested replacement paragraph changing the intent.

Response: No change was made. The original intent, demonstration of a commitment was retained.

Comment: 340-61-110(1) (b) (B) A long-term commitment is needed from local government to all these program. We need to see some hard dollars committed over a long period.

Response: This section calls for a report of the type and level of commitment to the waste reduction program.

Comment: 340-61-110(1)(b)(C) Suggested replacement paragraph changing the intent.

Response: No change was made, original intent, demonstration of commitment was retained.

Comment: 340-61-100(1)(c) Suggested replacement paragraph changing the intent.

Response: Original, more general wording was retained to provide flexibility in reporting.

Comment: 340-61-100(1)(c) Requirement to get all jurisdictions to sign a statement seems overwhelming.

Response: The intent was not to require signatures. The intent was for an accurate statement of what all the local jurisdictions have committed to associated with the waste reduction program.

Comment: 340-61-110(2) Suggested wording change in introductory line.

Response: Change unnecessary, original wording retained.

Comment: 340-61-110(2)(b) Is there an adequate indication that a local government can use a phase-in approach to a waste reduction program.

Response: Language was added to the rules to accommodate a phase-in approach.

Comment: 340-61-110(3) Suggested wording change in the introductory line.

Response: Change unnecessary, original line retained.

Comment: 340-61-110(3) This section is asking local government to do work which is too complex and outside of their control.

Response: By considering the material asked for in this section, a local government will be able to report on the local considerations which impact the "highest and best use." National and regional information will be available from the literature, the DEQ technical assistance staff and private consulting firms.

Comment: 340-61-110(3)(a)(A) There is a need for the DEQ to develop resource materials to assist local government in the development of waste reduction programs. Technical assistance from the DEQ is essential. There must be an effort to develop markets for the recycled materials from the waste reduction programs.

Response: DEQ will provide technical assistance on an as requested basis. Emphasis will be placed on market development and information assistance to local government and recyclers.

Comment: 340-61-110(3)(a)(A)(3) and (4) Suggested wording change.

Response: Not necessary, present wording provided the same intent.

Comment: 340-61-110(3)(a)(D) Suggested new section be added to the original guidelines: "reduction of pollution in landfills and industrial processing."

Response: Section 340-61-110(3)(a)(D) was added to the guidelines and appears in the proposed rules.

Comment: 340-61-110(4) Suggested wording change in the introductory line.

Response: Change unnecessary, original wording retained.

Comment: 340-61-110(4) Suggested new section.

Response: The following section was added to the rules: "A statement describing and tabulating the results of public hearings and meeting and written testimony from the public on the local waste reduction programs."

Comment: 340-61-110(5) Suggested wording change in the introductory line.

Response: Change unnecessary, original wording retained.

Comment: 340-61-100(5)(a)(C) Suggested wording change in guidelines.

Response: Wording change appears in the proposed rules, no change was made in intent.

Persons Submitting Comments

G. Craig Starr 1/23/80	Director, Lane County Solid Waste Division 125 East Eighth Eugene, Oregon 97401
Jerry Powell 1/25/80, 9/3/80	Resource Conservation Consultants 1615 Northwest 23rd Portland, Oregon 97210
Judy Ellmers 1/25/80	METRO, Solid Waste Division 527 Southwest Hall Portland, Oregon 97201
Bruce Walker 1/28/80, 9/2/80	Association of Oregon Recyclers 1615 Northwest 23rd Portland, Oregon 97210
Judy Roupf 1/28/80	Oregon Environmental Council 2637 Southwest Water Avenue Portland, Oregon 97201
Charles C. Kemper 7/4/80	R. A. Wright Engineering 1308 Southwest Bertha Boulevard Portland, Oregon 97219
James F. Lyon 7/15/80	County Engineer Hood River County Department of Public Works 918 18th Street Hood River, Oregon 97031
Larry E. Trumbull 7/18/80, 8/18/80	Director, Marion Co. Solid Waste Dept. Senator building, 220 High Street, NE Salem, Oregon 97301
William Culham 8/11/80	1929 Northeast Tenth Portland, Oregon 97212
Gerald A. Woodward 9/3/80	County Commissioner Tillamook County PO Box 152 Tillamook, OR 97141
Dan Burda 9/3/80	Saturn Shredders 28725 SW Boones Ferry Rd. Wilsonville, OR 97070
Tom Donaca 9/3/80	Associated Oregon Industries 1221 SW Main Portland, OR 97201
Roger Emmons 9/3/80	Oregon Sanitary Service Institute 4645 18th Place S. Salem, OR
Gordon Fultz	Associated Oregon Counties



Attachment V

Agenda Item S

September 19, 1980, EQC Meeting

Proposed Revision to Oregon Administrative Rules,  
Chapter 340, Solid Waste Management

340-61-100 Purpose

(1) It is the intent of the Commission that where a local government requests funding, technical or landfill assistance under ORS 459.047 through ORS 459.057 or ORS 468.220, that the local government shall make a good faith effort toward development, implementation and evaluation of waste reduction programs.

(2) These rules define the criteria set out in ORS 459.055(2). The Commission intends that these same criteria and rules apply to solid waste reduction under ORS 468.220. A waste reduction plan acceptable to the Department will be required before issuance of a permit for a landfill under this act or before the issuance of Pollution Control Bond Fund monies to local government.

(3) These rules are meant to be used to:

(a) Assist local government and other persons in development, implementation and evaluation of waste reduction programs.

(b) Assist the Department and Commission in evaluation of local government waste reduction programs.

(c) Serve as a basis for the DEQ report to the Legislature  
on:

- (1) the level of compliance with waste reduction programs,
  - (2) the number of programs accepted and rejected and why,
- and
- (3) the recommendations for further legislation.

(4) These rules are developed on the premise that the DEQ shall base acceptance or nonacceptance of a waste reduction program on criteria (a) through (e) of ORS 459.055(2) as further defined by these rules.

340-61-110 Submittals Each criteria shall be addressed with a written submittal to the Department with the following materials included in or attached thereto. The following rules represent minimum reasonable effort to comply with the criteria and are not meant to limit the scope of potential programs.

- (1) Submittals regarding commitment to reduce waste volume:
  - (a) A record of the official local government approval, adoption and inclusion of the waste reduction program into the adopted solid waste management plan, including a statement of commitment to the short and long-term goals, policies and objectives for a waste reduction program, and including a statement of commitment to provide the resources to implement the waste reduction program.

- (b) A statement of the following:
  - (A) The techniques for waste reduction considered and those chosen for use in the program.

(B) The resources committed to achieve the actions, including dollars, staff time and other staff and government resources.

(C) The required waste reduction activities that are part of a governmentally regulated or funded collection, recycling, reuse, resource recovery or disposal of solid waste and answers to the following questions: Which requirements were considered as part of the waste reduction program? What are the reasons for acceptance or rejection of the requirements? What is the duration of time of the imposed requirements?

(c) Where more than one local government unit has jurisdiction, the statement shall include all such jurisdictions.

(2) Submittals regarding an implementing timetable:

(a) A statement indicating:

(A) A starting date and duration of each portion of the program.

(B) How the program timetable is consistent with other activities and permits dealing with solid waste management in the affected area. The minimum acceptable duration for any activity shall be the length of time for any permit or funding requested.

(C) If a phased-in program is to be used, the statement should include a timetable and explanation of the need for the use of phase-in approach.

(3) Submittals regarding energy efficient, cost-effective approaches:

(a) An identification of the highest and best use of solid waste materials.

(A) Cost effectiveness analysis, including:

(1) The markets and market values of solid waste materials.

(2) The value of diverting solid waste from landfills.

(3) The value of potential energy savings through waste reduction alternatives considered.

(4) The dollar/cost/savings of different alternatives considered.

(B) Energy efficiency analysis including a net energy analysis of the different waste reduction alternatives considered.

(C) Materials savings and the effects on resource depletion.

(D) Reduction of pollution from disposal sites and industrial processing.

(4) Submittals regarding commensurate procedures:

(a) A statement indicating the following:

(A) The type and volume of waste generated in the area, including composition data.

(B) Any special geographic conditions which have an impact on waste reduction efforts.

(C) Efforts made to work joint programs with other localities or as part of a regional effort and answers to the following questions: At what level, regional or local, are the solid waste management efforts centered? At what level will the waste reduction plan be centered?

(b) A statement describing and tabulating results of public hearings and meetings and written testimony from the public on the local waste reduction program.

(5) Submittals regarding legal, technical and economical feasibility:

(a) A statement indicating the following:

(A) The legal, technical and economic efforts which are necessary and have been undertaken to make waste reduction alternatives feasible.

(B) A statement of what is considered "feasible" and why.

(C) A statement of the actions which will be taken to assure the flow of materials to make waste reduction alternatives feasible.

(b) A statement of examples which may include, but are not limited to, flow control of solid waste for one or more uses, prohibiting the theft or unauthorized taking of material under flow control, market development, price supports and others.

OREGON ENVIRONMENTAL QUALITY COMMISSION

Breakfast Meeting  
September 19, 1980

A G E N D A

1. Effects of 20% General Fund reduction on Department's 1979-81 budget - Young
2. Legislation - Swenson
3. Status of Open Burning Rules - Weathersbee
4. Discussion of policy on bond fund loans - Schmidt
5. Locations of future EQC meetings:

October	Portland
November	Portland
December	Portland (?)

January

Portland - open burning rules.

September 1980 EQC Breakfast Meeting

Pollution Control Bond Fund Policy on Loans

It was brought to the Commission's attention, at the July breakfast meeting, that local governments were requesting changes in the Commission's policy on security of loans from the Pollution Control Bond Fund. The staff perceived a very cautious interest by the Commission in looking at alternative financing approaches.

In further review of the subject, we have determined that a fairly extensive evaluation would be required to make us comfortable with any recommended policy changes. General re-evaluation of the usefulness and financial advantage of the present PCB funding approach in today's economy seems warranted. The League of Oregon Cities and Association of Oregon Counties can probably assist in identifying gaps in current financing. We are aware of innovative municipal financing approaches being initiated in California as a result of tax limitation legislation.

We feel that some new combination of safe securities would be useful and probably do exist for local government. We have been unable, however, to develop a direct recommendation on the specific question of Marion County for pledge of fees and related securities, without the assistance of a municipal financing consultant to review the bigger picture.

We now propose to present an agenda item for your consideration at the October EQC meeting including a scope of work, time schedule, estimated cost and source of funds for a consultant contract to develop recommendations for best management of the PCB Fund. The objective would be to maximize usefulness to local government while maintaining high financial integrity and attraction to the bond market. It is assumed that a contract might run 90 - 120 days. In the meantime, it is recommended that there be no change in policy.

/dro  
9/18/80



VICTOR ATIYEH  
GOVERNOR

# Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

## MEMORANDUM

To: Environmental Quality Commission

From: Peter Bosserman, Air Quality Staff

Subject: Agenda Item No. P, September 19, 1980, EQC Meeting

An Amendment to Volatile Organic Compound Rule 340-22-120

## Background

A September 5, 1980 draft of the Volatile Organic Compound rules were mailed to the Commission, with the recommendation to adopt. Copies were also sent to the plants affected. One of the gasoline bulk plants noted a flaw in the 340-22-120 rule, phoned me Tuesday, and confirmed that with the attached letter.

As written 340-22-120 requires bulk plants, in the Portland AQMA, with a through-put of over 4000 gallons of gasoline per day, to put in vapor balance on the loading rack and delivery truck, even if all the accounts they serve are exempt from vapor balance, because of handling less than 10,000 gallons per month each, as allowed by 340-22-110(2)(c). Since these bulk plants would capture no vapor at the service stations, it was not intended to have them install vapor balance on their gasoline-delivering racks and trucks.

The Staff and EPA reached a compromise over the "Bubble rule", 340-22-108, which EPA disapproved. Oregon would not submit 340-22-108 as part of the State Implementation Plan, but would submit each case to EPA where 340-22-108 was used.

## Recommendation

Therefore, the Director hereby modifies his recommendation contained on page 13 of his memorandum to the Commission regarding Agenda Item P, September 19, 1980, EQC Meeting by recommending that proposed OAR 340-22-120(1)(c) be modified as follows, and be adopted as so modified (additions to the proposed rule are shown by underlining):

### 340-22-120 (1) (c)

If a bulk gasoline plant which is located in the Portland AQMA, transfers less than 4,000 gallons of gasoline per day (annual through-put divided by the days worked), or if each of the dispensing facilities to which the plant delivers receives less than 10,000 gallons per month, then capture of displaced vapors during the filling of delivery vessel(s) from the bulk plant is exempt from 340-22-120(1)(b) and the bulk plant's customers are exempt from 340-22-110(1)(b) and (c). If a bulk gasoline plant is located in the Medford-Ashland AQMA, or in the Salem SATS, capture of displaced vapors during the filling of delivery vessel(s) from the bulk plant is exempt from 340-22-120(1)(b) and the bulk plant's customers are exempt from 340-22-110(1)(b) and (c).

Also the Director recommends that 340-22-108 not be submitted to EPA as part of the State Implementation Plan.



**UNION**  
HEATING OILS



Gasoline-Diesel  
Lube Oil-Grease

P. O. BOX 192 - GRESHAM, OREGON 97030 - 665-2188

Sept. 16, 1980  
EQC Meeting - Bend, Or.  
Sept. 19, 1980

Peter B. Bosserman *P.B. 9/17*  
Dept. of Environmental Quality  
P. O. Box 1760  
Portland, Or. 97207

Dear Peter:

This will confirm our telephone conversation Tuesday, Sept. 16, 1980, concerning the wording in "Issue 3: Vapor Balance for Bulk Plants and Their Customers" which is to be considered in the EQC Meeting Sept. 19, 1980 in Bend, Oregon

We discussed the need for a change in language in the first paragraph of Issue 3 to clarify the following statement: "the rules can be rewritten to impose vapor balance only on Portland area bulk plants larger than 4,000 gallons per day, and on their customers over 10,000 gallons per month." The language should state: If individual customers of bulk plants ~~are~~ *purchase* under 10,000 gallons per month, ~~purchase of gasoline~~, then the bulk plant would be exempt from the 4,000 gallon rule requiring vapor balance.

You will recall that we further discussed that 80 to 90% of my commercial gasoline customers have 1,000 gal. tanks or less and further that the largest opening in their tanks is a 2" opening which will not accept the Emco Wheaton vapor balance device. This device requires a minimum 3" opening into the storage tank.

No bulk plant could stay in business long delivering less than 4,000 gallons of gasoline a day. Nor could most of our small commercial accounts afford to convert their tanks to accept vapor balance systems.

MT. HOOD OIL CO., INC.

W. C. Felker

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
SEP 17 1980

AIR QUALITY CONTROL

5/11 2 1980 *Jemp*  
Rec'd 9-19-80



**ROHM  
AND  
HAAS  
COMPANY**

May 23, 1980

Mr. Jerry McKnight  
Lilly Industrial Coatings, Inc.  
619 S.W. Wood Street  
Hillsboro, OR 97123

Dear Jerry,

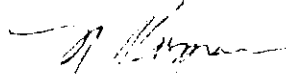
We have reviewed the letter from the Pacific Northwest Society for Coatings Technology requesting comments on the formulation limits as proposed by the State of Oregon's regulations on VOC, labelled Table I (Page 31). The request specifically designated "equivalent performance of a commercially available quick air dry finish" "of resin systems which would cure under the attached temperature and humidity conditions."

The limitations of ambient dry conditions that you have provided severely limit the number of systems that might dry or cure properly while meeting the proposed VOC limitations. We are not aware of any resin systems that would meet the proposed VOC limitations, air dry, and provide adequate properties for the categories of can coating, coil coating, fabric coating, vinyl coating, paper coating, auto and light duty truck coating, metal furniture coating, magnet wire coating, or large appliance coating. The one exception might be urethane systems for the repair coat for auto and light truck coatings.

Under the miscellaneous products and metal parts categories, a number of waterborne resins exist, and at least one urethane system exists which would meet the proposed VOC limitations. However, the low temperatures and high relative humidities you have provided in the attachments would preclude the practical use of waterborne resins. Low temperatures would retard dry rate and inhibit film formation in most instances. Similarly, high relative humidity (ca 85%) would extend dry-to-touch time beyond one hour for waterborne systems, and would also adversely affect film formation resulting in poor performance properties. We recommend to customers who experience low temperature, high humidity, or a combination of both conditions to use waterborne coatings where force drying is available. While universal drying conditions cannot be recommended, we suggest to customers that a 15 minute force dry at 140°F, following a maximum flash-off period of 10 minutes, will generally overcome adverse temperature and humidity conditions for systems designed for "air dry."

We believe these statements are a brief summary of the potential of currently available technology and hope the statements aid you in your assessment of the utility of low VOC, air-dry systems for coatings.

Very truly yours,



N. Roman  
Industrial Coatings  
Polymers, Resins & Monomers, N. A.

NR:jp  
(Doc. 3361I/216Z))



UNION CARBIDE CORPORATION  
PERFORMANCE CHEMICALS AND POLYMERS DIVISION  
19206 Hawthorne Boulevard, Torrance, CA 90503  
(213) 772-6435

May 28, 1980

Mr. Stephen R. Norton, Chairman  
Environmental Control Committee  
Pacific Northwest Society for Coatings Technology  
Portland, Oregon 97208

Dear Mr. Norton:

This letter is in reference to your request for information concerning vehicles that are available to formulate water-based coatings that meet the new proposed regulation, Rule 340-22-170. In addition, these systems should perform well in the temperature and humidity conditions found in the Portland, Oregon, metropolitan area.

At this time we have no water-based vehicles with application properties suitable for the industrial coatings noted, with the exception of the coil coatings, furniture and appliance coatings when forced dried.

Moreover, the water-based vehicles now in use for miscellaneous metal products, when air dried, would not be recommended during the winter months due to the rain and temperature conditions found in the Portland area.

We recognize your interest in this area and will continue to advise you of any new developments that may occur in the future.

Cordially yours,

A handwritten signature in cursive script that reads "W. P. Miller".

W. P. Miller  
Technology Manager  
Union Carbide Corporation  
Coatings Materials Division

WPM/bd

**QUALITY EMULSION POLYMERS**



MCCLOSKEY VARNISH CO

OF THE NORTHWEST



4155 N. W. YEON AVE., PORTLAND, OREGON 97210

503-226-3751

*Manufacturers*

ASKED FOR COMMENTS ON AVAILABLE RESIN SYSTEMS WHICH WILL MEET THE REQUIREMENTS OF THE PROPOSED OREGON ADMINISTRATIVE RULE 340-22-170.

JUNE 2, 1980

MR. STEPHEN NORTON, CHAIRMAN  
ENVIRONMENTAL CONTROL COMMITTEE  
PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY  
PORTLAND, OREGON 97208

DEAR MR. NORTON:

WE CAREFULLY HAVE REVIEWED THE LETTER FROM THE PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY ASKING FOR COMMENTS ON AVAILABLE RESIN SYSTEMS WHICH WILL MEET THE REQUIREMENTS OF THE PROPOSED OREGON ADMINISTRATIVE RULE 340-22-170. THESE SYSTEMS WOULD, OF COURSE, BE REQUIRED TO PERFORM ADEQUATELY THROUGHOUT THE ENTIRE CLIMATOLOGICAL YEAR.

SINCE THIS SPANS THE HOT, LOW HUMIDITY MONTHS OF SUMMER AND EARLY FALL TO THE COLD, HUMID CONDITIONS OF LATE FALL, WINTER, AND SPRING, WE HAVE CONCLUDED WE HAVE NO RESIN SYSTEMS WHICH WILL COMPLY.

SOME WATER SYSTEMS WHICH WE NOW HAVE AVAILABLE, COULD BE MADE TO PERFORM ADEQUATELY FOR PART OF THE YEAR USING ELEVATED TEMPERATURE FORCE DRYING TECHNIQUES. HOWEVER, THE ALMOST CERTAINTY OF RAIN IN PORTLAND, NOVEMBER THROUGH APRIL, COUPLED WITH THE LOW TEMPERATURES AND HIGH RELATIVE HUMIDITIES WOULD ELIMINATE THESE SYSTEMS FROM CONSIDERATION DURING THESE MONTHS. THESE COATINGS WOULD PROBABLY, TO PUT IT BLUNTLY, WASH OFF SOON AFTER BEING EXPOSED TO THE RAIN.

EXTENSIVE DEVELOPMENT WORK IS CURRENTLY UNDERWAY IN OUR LABORATORIES ON HIGH SOLIDS, WATER SOLUBLE AND LATEX SYSTEMS. TO DATE, HOWEVER, NONE OF THESE APPROACHES HAS YIELDED A SYSTEM COMPLETELY ADEQUATE TO MEET THE REQUIREMENTS OF 340-22-170.

THANK YOU FOR YOUR INTEREST IN THIS AREA AND WE WILL KEEP YOU ADVISED OF DEVELOPMENTS AS THEY OCCUR.

SINCERELY,

*John H. Daller*

JOHN H DALLER  
VICE-PRESIDENT  
TECHNICAL DIRECTOR  
MCCLOSKEY - NORTHWEST

JHD/D

# REICHHOLD CHEMICALS, INC.

*Chemical Technology*

*World Headquarters*



*World Headquarters* • RCI BUILDING, WHITE PLAINS, N. Y. 10603

July 17, 1980

Mr. Robert Miller  
Pacific Northwest Society for  
Coatings Technology  
c/o Imperial Paint Co.  
2526 N.W. Yeon Ave.  
Portland, Oregon 97210

Dear Mr. Miller:

You had asked for comments on the practicality of the Coatings Industry to supply coatings that would conform to the proposed requirements of the Oregon Department of Environmental Quality Rule 340-22-17. You were particularly concerned about being able to supply coatings to small to medium manufacturers who cannot justify drying ovens and pollution control systems. This would involve the categories of "Miscellaneous Products and Metal Parts" and to some extent "Auto and Light Duty Truck Coating" as shown on page 5 of the draft rule.

In the absence of drying ovens, the coatings involved would have to be air-dried under ambient conditions. In my opinion, this would give rise to problems in two areas: Application and Ultimate Performance. The presence of substantial amounts of water in coatings of the types in question will give rise to drying problems. This will be especially true in the Portland area where high humidity is characteristic through much of the colder part of the year. As is recognized in our industry, use of water in coatings does give different drying performance as compared to that from conventional solvents. Water has a fixed evaporation rate at a given temperature and humidity; whereas solvents can be varied to speed up or slow down dry rates of coatings and are much less influenced by humidity and temperature. This versatility of solvent-based coatings has undoubtedly been utilized to meet the conditions of application and drying that exist in the Oregon area.

July 17, 1980

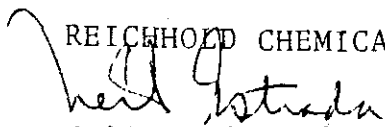
A further complication due to the use of water in coatings is that of recoating. While emphasis has been placed on use of water to replace more conventional solvents, it has been found necessary to use some rather unconventional organic solvents in the resins on which water-thinned coatings are based. The one used most widely, ethylene glycol monobutyl ether acetate, in addition to having an objectionable odor, can cause lifting on recoating during certain stages of the drying process. This effect would be extended during the slower drying to be expected during periods of low temperature and high humidity.

The Ultimate Performance of air-dried, water-thinned coatings cannot at present be expected to equal that of current solvent-based coatings. While it is true that many water-based coatings are currently being used industrially, it is also true that they are typically baked in order to develop suitable performance properties. The changes in resin formulation required to make them water-thinnable also result in resins that contain residual groups that result in coatings with greater sensitivity to water, alkaline solutions and weathering unless these groups are tied up in a baking process. Since baking is not available in the problem under discussion, the use of water-thinned coatings will result in a lower quality coating.

Based on experience gained in California with water-thinned coatings, it is somewhat questionable that there will be a significant reduction in solvent emissions overall. Evidence is accumulating that more coats of water-thinned coatings are needed to get proper coverage and adequate film thickness. Since these water-thinned coatings do contain appreciable amounts of solvents, increasing the number of coats needed lessens the reduction of solvent emissions. Since the draft rule for the categories under discussion for Oregon allow more solvents per gallon than do the California regulations, it is doubtful that any significant reduction will be achieved.

Sincerely,

REICHHOLD CHEMICALS, INC.

  
Neil S. Estrada  
Vice-President & Gen'l Mgr.  
Pacific Central Division

NSE:dj

**CARGILL**  
**CHEMICAL PRODUCTS**  
**DIVISION**

2801 Lynwood Road  
Lynwood, California 90262

Sales: (213) 636-2305  
Plant: (213) 638-0581

August 13, 1980

Robert Miller  
Imperial Paint Co.  
2526 N.W. Yeon Ave.  
Portland, Oregon

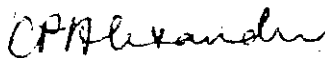
Dear Mr. Miller:

This letter is in response to your inquiry regarding the availability of high solids resins for air dry finishes that will meet the State of Oregon's Draft Regulation on VOC.

While we do market high solids air dry alkyds that will meet most VOC requirements, these will have considerably slower dry characteristics than conventional solvent based air dry systems under the low temperature, high relative humidity winter conditions in the Metropolitan Portland area. Therefore, we do not have a candidate that we could recommend for this particular application at the present time.

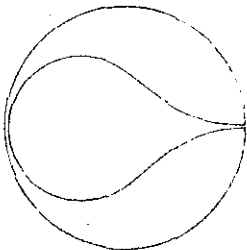
Sorry for the delay in responding to your inquiry.

Sincerely,



Cyriac P. Alexander  
Laboratory Manager - Coating Resins

CPA/cr





MEMO

Director

DEPARTMENT OF ENVIRONMENTAL QUALITY



WHY--

The attached additional testimony on  
VOC rules was recently received. I've  
given copies to all Commission members.

Carol

MEMBER OF



# PACIFIC NORTHWEST SOCIETY FOR COATINGS TECHNOLOGY

PORTLAND, OREGON SECTION

September 15, 1980

Mr. Peter Bosserman  
State of Oregon  
Department of Environmental Quality  
Air Quality Division  
P.O. Box 1760  
Portland, Oregon 97207

Dear Peter,

Please find the two attached letters of support of the coatings industry's VOC rule position enclosed. The letters from Reichhold Chemicals, Inc. and Cargill Chemical Products Division speak for themselves.

I will be available at the adoption hearing in Bend on September 19th for additional comments. I would, however, like the letters considered as testimony for the items as listed in my letter of June 17, 1980.

Sincerely,

Stephen R. Norton, Chairman  
Environmental Committee  
Pacific Northwest Society for Coatings Technology

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
SEP 16 1980  
AIR QUALITY CONTROL

# REICHHOLD CHEMICALS, INC.

*Creative Chemistry... Your Partner in Progress*

*World Headquarters* • RCI BUILDING, WHITE PLAINS, N. Y. 10603



Address Reply To  
120 South Linden Avenue  
South San Francisco, California 94080  
Telephone: 415-761-1585, 415-583-8505

July 17, 1980

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Coatings Technology  
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2526 N.W. Yeon Ave.  
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July 17, 1980


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Sincerely,

REICHHOLD CHEMICALS, INC.

  
Neil S. Estrada  
Vice-President & Gen'l Mgr.  
Pacific Central Division

NSE:dj

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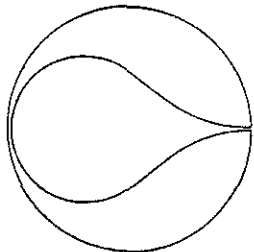
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Sincerely,

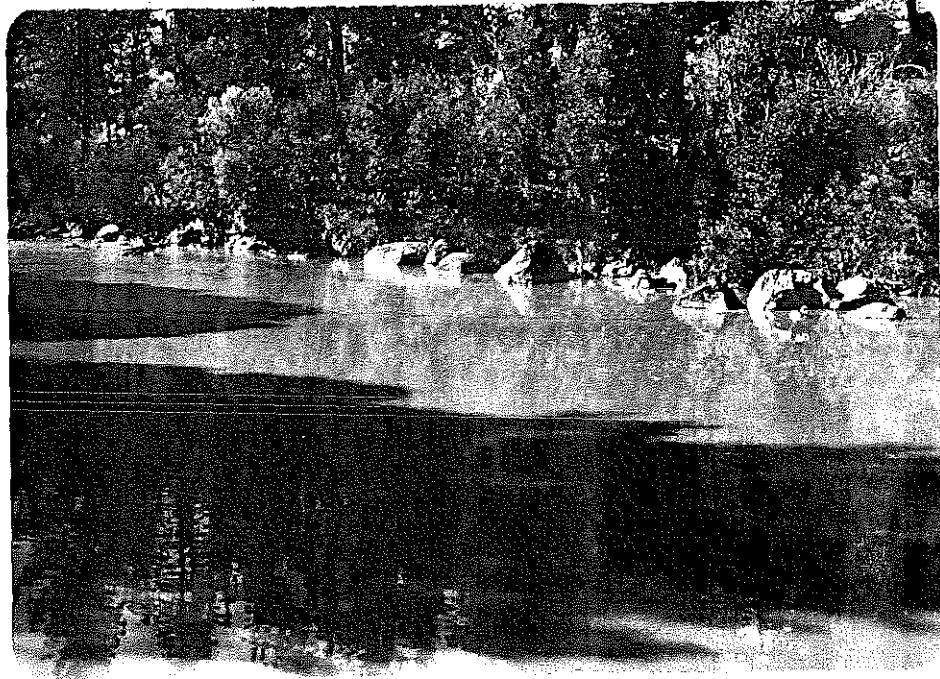
*CP Alexander*

Cyriac P. Alexander  
Laboratory Manager - Coating Resins

CPA/cr



LW - R. MITZ.  
Beschutes  
TAKEN July 22,  
1979



TO THE MEMBERS OF D.E.Q.

In regards to the notice received sometime in July of 1980 pertaining to new regulations on capping fill.

I and other licensed installers feel that these rules will only serve to burden the public with higher construction costs of new homes and thereby should not have been adopted.

According to Section II, Paragraph B, this rule would put us out of business for eight months of every year.

Paragraph E, same section will make it impossible to continue to install system without purchasing more equipment.

Paragraph F would require that we either hire a landscaper or acquire the knowledge to landscape ourself.

The time required to obtain four inspections will not only be time consuming but will also add expense.

*Don Dann*

*D.B.R. Crooked River  
Construction.*

*1515 W. Antler*

*Redmond, Ore.*

*97756.*

*Ph. 548-5249.*

9/17/80

To: Environmental Quality Commission

From: Bob Wilson, Acting Director, Linn County  
Environmental Health Division

Re: Capping Fill Rules

I feel it is unreasonable to require that the repair area be filled during initial construction.

The initial installation should be expected to work for at least 10-15 years, or it should not be approved. By that time there may be more efficient and more economical systems available, including municipal treatment.

Thank you.

Bob Wilson



LIVELY, WISWALL, SVOBODA, THORP & DENNETT

LAW OFFICES  
644 North A Street  
Springfield, Oregon 97477  
(503) 747-3354

William Wiswall  
John L. Svoboda  
Laurence E. Thorp  
Douglas J. Dennett  
Dwight G. Purdy  
Jill E. Golden  
Robert A. Miller  
Scott M. Galenbeck

George A. Morris  
G. David Jewett  
Robert A. Thrall  
James M. O'Kief  
Karen Hendricks

Marvin O. Sanders  
(1912-1977)  
Jack B. Lively  
(1923-1979)

September 17, 1980

Joe B. Richards, Chairman  
Environmental Quality Commission  
c/o 777 High Street  
Eugene, Oregon 97401

RE: DEQ's Proposed Sewerage Treatment Construction Grants  
Priority System (AR-340-53-005 through 035), and  
FY 81 Priority List

Dear Mr. Richards:

As you know, this firm represents the Metropolitan Wastewater Management Commission (MWMC). On Friday, September 19, 1980, the Environmental Quality Commission is scheduled for a meeting in Bend, Oregon. Item No. 0 on the agenda relates to the adoption of the above-referenced administrative rule and Oregon's FY 81 priority list for the sewerage treatment construction grants program. Even a cursory review of the proposed rule and priority list shows that there have been significant changes to the draft administrative rule and priority list which were the subject of the August 5, 1980, public hearing. For example, DEQ has recommended the termination of the transition policy with the FY 82 budget year. It has also recommended the federal reimbursement of eligible costs be reduced from 75% to 50% if Congress passes pending legislation permitting such action. Both of these actions would significantly affect the MWMC as well as other programs and neither was addressed in the draft rule or priority list considered at the August 5, 1980, public hearing.

Notice of the changes was not received by interested parties until five working days before the date proposed for adoption. The MWMC wishes to submit a comprehensive response to several of the proposed changes. However, because of the short notice, the MWMC has not had a reasonable opportunity to prepare and, in fact, will not be able to prepare an adequate response in time for the September 19, 1980, meeting. Accordingly, the MWMC formally requests that the EQC postpone taking any action on this matter at the September 19, 1980, meeting and that it reschedule the matter for further public hearing with sufficient public notice so that interested parties may present their views.

Joe B. Richards (EQC)  
September 17, 1980  
Page 2

It is my opinion that due to the significant nature of the changes, a postponement is required by the federal public participation regulations governing the adoption of statewide priority systems and priority lists. Absent compliance with these regulations, the Environmental Protection Agency will not be able to approve either the priority system or the priority list. The applicable regulations are found at 40 CFR §§ 35.915, 35.1500 et seq., and 25.5.

The regulations found at 40 CFR §35.915 require that before submitting the priority system and/or priority list to the Regional Administrator for approval, the state must insure adequate public participation including public hearings on both the priority system and priority list. The hearing requirement expressly applies to any revisions to the priority system or priority list.

Adequate and timely statewide notice of the meeting and adequate opportunity to express its views must be given to the public. The rules governing the timeliness and adequacy of the notice are fleshed out in 40 CFR §25.5 which is made applicable by 40 CFR §35.1503(c) through 40 CFR §35.915(d). For example, absent express EPA approval for a shorter time period, the notice of each public hearing must be circulated at least 45 days prior to the date of the hearing. 40 CFR §25.5(b). Moreover, reports, documents and relevant data must be made available at least 30 days before the hearing. Id. In this case, notwithstanding substantial revisions to both the priority system and the priority list, neither the notice of the hearing nor the materials were available more than one week prior to the date proposed for EQC's action. In addition, even if the publication of the notice and distribution of materials were timely, the notice is inadequate for failing to include all of the required information. For example, before the hearing the state must circulate "information about the priority list including a description of each proposed project and a statement concerning whether or not it is necessary to meet the enforceable requirements of the Act." This was not done.

Given the significance of the changes from the draft rule and priority list considered at the August 5, 1980, public hearing, we feel that the state Administrative Procedures Act also requires another hearing. This request for a postponement for more time to prepare oral and written submissions related to the effects of the changes is, therefore, also based on ORS Chapter 183.

Joe B. Richards (EQC)  
September 17, 1980  
Page 3

One or more representatives of the MWMC will appear at the EQC meeting on September 19, 1980. However, while oral and written comments are currently being prepared, they will not, for the reasons stated, be ready at that time. Our appearance will be solely to reiterate our request for a postponement of EQC action on this matter. Nevertheless, a response to this request for a continuance at your earliest opportunity would be greatly appreciated.

Very truly yours,

LIVELY, WISWALL, SVOBODA,  
THORP & DENNETT

G. David Jewett

GDJ/kb

cc: William V. Pye, Manager  
Metropolitan Wastewater Management  
Commission  
P. O. Box 1463  
Eugene OR 97440

William H. Young, Director  
Department of Environmental Quality  
P. O. Box 1760  
Portland OR 97207

Ray Underwood, Chief Counsel  
Oregon Department of Justice  
500 Pacific Building  
520 S.W. Yamhill  
Portland OR 97204

Brian L. Hansen  
Office of Regional Counsel  
U. S. Environmental Protection Agency  
1200 Sixth Avenue  
Seattle WA 98101  
MAIL STOP 613



**METROPOLITAN SERVICE DISTRICT**  
527 S.W. HALL ST., PORTLAND, OR. 97201, 503/221-1646

Rick Gustafson  
EXECUTIVE OFFICER

September 18, 1980

Metro Council  
Marge Kafoury  
PRESIDING OFFICER  
DISTRICT 11

Jack Deines  
DEPUTY PRESIDING  
OFFICER  
DISTRICT 5

Donna Stuhr  
DISTRICT 1

Charles Williamson  
DISTRICT 2

Craig Berkman  
DISTRICT 3

Corky Kirkpatrick  
DISTRICT 4

Jane Rhodes  
DISTRICT 6

Betty Schedeen  
DISTRICT 7

Ernie Bonner  
DISTRICT 8

Cindy Banzer  
DISTRICT 9

Gene Peterson  
DISTRICT 10

Mike Burton  
DISTRICT 12

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**R E C E I V E D**  
SEP 18 1980

**OFFICE OF THE DIRECTOR**

Mr. Joe B. Richards, Chairman  
Environmental Quality Commission  
P.O. Box 1760  
Portland, Oregon 97207

Dear Joe:

During the past two years Metro has submitted testimony to the Environmental Quality Commission and the Department of Environmental Quality (DEQ) concerning the State's Sewerage Works Construction Grants Program and the critical funding need for sewerage facilities in the Portland Metropolitan Area and throughout the State. We are encouraged that DEQ has considered Metro's past recommendations and proposed changes to the criteria and administrative rules that would accomplish our mutual objectives.

However, even with these changes there is not enough money available now - and there may never be enough available - through the Federal Construction Grant Program to fund the projects Oregon needs. Oregon cities and counties are just completing one of the most ambitious land use planning efforts ever attempted. Once adopted, these jurisdictions' comprehensive plans will require support from an infrastructure of water, sewer and roads, to make them work. It is becoming more and more apparent that local governments will be required to share an increasing part of the cost of providing sewers and other needed public facilities. The State must develop administrative and financial programs which will distribute available funds in an equitable manner, and thus ease the burden on local governments during this transition period. Toward this end, Metro would like to make the following recommendations:

Recommendation #1

Increase the limitation on the pollution control bond fund established in ORS 468-195.

Concern has recently been expressed about the amount of bonded indebtedness incurred by the State of Oregon and its potential impact on the rating of state and

Mr. Joe B. Richards  
September 18, 1980  
Page 2

local municipal bonds. A majority of this indebtedness is incurred through the State Veterans Home Loan Program. But voters in the State have repeatedly supported this program and the bonds themselves are self-liquidating. However, new homes cannot be constructed without public facilities, particularly sewers. Provisions should be made for indexing bond programs which provide for such public facilities to the bond level of the Veterans Home Loan Program.

Recommendation #2

Establish a revolving loan fund available to local governments on a sliding interest rate to encourage rapid payback of Pollution Control Bond Funds.

With a limited amount of funds available, local governments should have incentives to quickly pay back loans, thus making money available sooner for other projects.

Recommendation #3

Distribute Pollution Control Bond loans to communities throughout the State in relation to the growth designation in their comprehensive plans.

Through Oregon's land use planning process, urbanizable areas have been designated within established Urban Growth Boundaries (UGB). If this planned growth is to be accomplished, public facilities must be provided to accommodate it.

Recommendation #4

Legislative clarification enabling the use of revenue bonds for financing sewerage facilities.

Revenue bonds, while somewhat more expensive than general obligation bonds, could provide an alternative to local governments for financing sewerage facilities. Service charges could be used to pay back these bonds, and the cost of elections required to sell general obligation bonds could be saved. While there is nothing in the State legislation that prohibits using revenue bonds for this purpose, bond councils are reluctant to approve such use without specific enabling legislation.

Mr. Joe B. Richards  
September 18, 1980  
Page 3

Recommendation #5

Streamline the plan review process for local governments that choose to fund projects entirely with local funds.

Once a local government has elected to fund a project locally, every effort should be made to complete the project as quickly as possible to minimize the impact of inflation.

Recommendation #6

DEQ should continue to seek a change in federal legislation to enable the State at its discretion to reduce the level of federal grant participation below the 75 percent level now required.

As indicated in the DEQ staff report, this action would require a greater percentage of local funding. It would also allow more projects to share in the limited amount of federal grant monies, shorten the time for receiving these grants and thereby reduce the impacts of inflation.

Recommendation #7

In these area of the State where Areawide Waste Treatment Management Plans have been adopted pursuant to Section "208" of the Clean Water Act (PL 92-500) Federal Construction Grants should be distributed on a block grant basis.

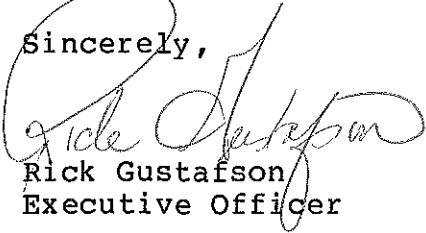
Areawide "208" Plans have been developed at considerable expense to determine the most timely and economic ways to provide sewerage service on a regional basis. "208" plans, where they exist, are a cornerstone of the State Land Use planning process. DEQ, in reviewing local comprehensive plans, checks for compliance with the "208" Plan. It makes sense, then, that this planning effort should be given greater consideration in the State Construction Grant Program.

Thank you for your consideration of these recommendations. We welcome your comments. Metro will be introducing some of these same ideas in the upcoming legislative session, and would appreciate your support.

Mr. Joe B. Richards  
September 18, 1980  
Page 4

Equitable distribution of ever-decreasing federal construction grant money is difficult -- but without sewer capacity, planned growth in the Portland region and throughout the State is impossible. We must work together to remove this constraint.

Sincerely,



Rick Gustafson  
Executive Officer

RG:JL:ss  
397B/D3

TESTIMONY BY DAVID J. ABRAHAM  
ENVIRONMENTAL QUALITY COMMISSION MEETING  
SEPTEMBER 19, 1980  
BEND, OREGON

THANK YOU MR. CHAIRMAN, MEMBERS OF THE COMMISSION, MR. YOUNG AND STAFF. MY NAME IS DAVID ABRAHAM. I AM THE UTILITIES DIRECTOR FOR CLACKAMAS COUNTY, AND I AM HERE ON BEHALF OF THE TRI-CITY SERVICE DISTRICT PROJECT, No. 493 ON ON THE PRIORITY LIST. AS YOU MAY HAVE NOTICED, I AM WITH THE LARGE CONTINGENT OF PEOPLE FROM THE TRI-CITY AREA WHICH JUST ARRIVED. THERE ARE 15 OF US NOT COUNTING THE DRIVER OF THE BUS THAT BROUGHT US HERE TO BEND. (WOULD THOSE PEOPLE IN OUR GROUP PLEASE RAISE YOUR HANDS TO IDENTIFY YOURSELVES.)

WE ARE PLEASED TO BE HERE AND WISH TO THANK THE COMMISSION FOR POSTPONING THIS ITEM ON THE AGENDA UNTIL OUR ARRIVAL. WE ARE ESPECIALLY PLEASED TO BE ABLE TO ANNOUNCE TO YOU THE SUCCESSFUL PASSAGE OF A \$25 MILLION BOND ISSUE BY THE TRI-CITY AREA VOTERS LAST TUESDAY. THIS VERY LARGE AUTHORIZATION REPRESENTS THE LOCAL SHARE OF THE TRI-CITY SERVICE DISTRICT'S PROJECT COSTS. AS YOU MAY BE AWARE, THE VOTERS APPROVED FORMATION OF A DISTRICT THAT INCLUDES OREGON CITY, WEST LINN, AND A LARGE PORTION OF GLADSTONE AT THE JUNE 24 ELECTION. WE WISH TO EXPRESS OUR SPECIAL THANKS TO YOUR DIRECTOR, BILL YOUNG AND HIS STAFF FOR THE DIRECT SUPPORT THEY RENDERED, WHICH WE BELIEVE IMPACTED THE DECISION OF THE ELECTORATE.

REGARDING THE RECOMMENDED CONSTRUCTION GRANTS CRITERIA, WE BELIEVE SUBSTANTIAL PROGRESS HAS BEEN MADE TO CORRECT FOR THE DEVASTATING AFFECTS EXPERIENCED BY THE PROGRAM AS A RESULT OF THE 1979 FUNDING CRISIS. THE ABOLISHMENT OF THE TRANSITION POLICY INVOKED AT THAT TIME IS APPROPRIATE. THOSE PROJECTS THAT ARE BENEFITING FROM THIS POLICY HAVE HAD AMPLE TIME TO AJUST PROGRAMS AND FINANCES AND NO LONGER WARRANT THIS PREFERENTIAL TREATMENT. WE HOLDHARDLY SUPPORT THE DEPARTMENT'S STAFF IN THIS RECOMMENDATION.



THE RECOMMENDATION TO RANK SEPARATELY COMPONENTS OF PROJECTS IS UNQUESTIONABLY OF GREAT SIGNIFICANCE. IT BRINGS THE CONSTRUCTION GRANTS PROGRAM BACK ON TRACK WHERE AGAIN CORRECTION OF THE MOST CRITICAL WATER POLLUTION PROBLEM STATE-WIDE IS THE BASIS FOR ALLOCATING GRANT MONIES. UNTIL 1979 THE CONSTRUCTION GRANTS PROGRAM WAS ACCOMPLISHING THIS BASIC PRECEPT EVEN THO CERTAIN COMPONENTS OF PROJECTS ACHIEVED A LESSER LEVEL OF POLLUTION ABATEMENT. AT THAT TIME TOTAL PROJECTS WERE MUCH SMALLER AND THOSE LESSER COMPONENTS DID NOT DRAIN OFF LARGE AMOUNTS OF GRANT DOLLARS. ADDITIONALLY, THE AVAILABILITY OF FUNDS WAS SUCH THAT MOST ALL PROJECTS COULD BE AND WERE FUNDED WHEN THEY REACHED THE POINT OF "READY TO PROCEED". IT IS NOW COMMON KNOWLEDGE THAT THE FUNDING CRISIS OF '79 WAS SIGNIFICANTLY AGGRAVATED BY THE SUDDEN INTRODUCTION OF DISPROPORTIONATE COST INCREASES IN ALREADY VERY, VERY LARGE PROJECTS. EVEN WITHOUT THE ADDED IMPACT OF THE FEDERAL GRANT ALLOCATION CUTBACK, PAST PRACTICES WOULD HAVE HAD TO BE MODIFIED. RANKING COMPONENTS OF TOTAL PROJECTS IS THE CORRECT ANSWER AND WE SUPPORT THE STAFF'S RECOMMENDATION IN THIS POLICY CHANGE.

WELL IT MUST BE ACKNOWLEDGED THAT THE EFFORTS TO ADJUST THE CONSTRUCTION GRANTS PROGRAM TO COMPENSATE FOR THE FUNDING CRISIS LOOKS MOST ENCOURAGING, THERE IS AN ELEMENT OF THE PROPOSED FUTURE POLICY CHANGES THAT IS MOST CONCERNING. THAT IS THE PROPOSAL FOR "REDUCED GRANT PARTICIPATION" AS OUTLINED IN THE STAFF'S REPORT. I PRAY THAT IN THE MONTHS AHEAD THE STAFF AND THE COMMISSION APPROCH THIS ISSUE WITH EXTREME CAUTION. TO THE EXTENT THAT FUTURE REGULATIONS WOULD ALLOW, ARBITRARY ACROSS-THE-BOARD REDUCTIONS IN THE LEVEL OF GRANT FUNDING COULD BE AS DISRUPTIVE TO THE PROGRAM AS WAS THE '79 FUNDING CRISIS. THE EFFECTS WOULD BE MORE THAN SINGULAR IN THEIR IMPACT. IMMEDIATELY, IT WOULD NULLIFY

THE NOW ACHIEVED POLICY OF DIRECTING FUNDS TO THE MOST CRITICAL WATER POLLUTION PROBLEMS. THE REDUCED FUNDING POLICY, IF ADOPTED, WOULD SIMPLY BE A FORM OF REVENUE SHARING FOR SEWERAGE WORKS AGENCIES. IT SEEMS THAT THIS IS A CASE OF OVERREACTING WITH THE PENDULUM SWINGING TOO FAR IN THE OPPOSITE DIRECTION.

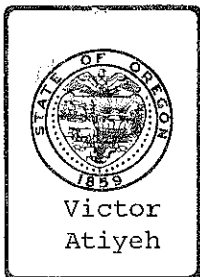
IF IN THE FUTURE MONTHS OF REVIEW IT APPEARS THAT OVER THE LONG RANGE REDUCED FUNDING LEVELS MORE EFFECTIVELY ACHIEVE THE STATE-WIDE GOAL, A MORE FLEXIBLE POLICY SHOULD BE EMPLOYED. THAT IS, A POLICY THAT CONSIDERS WHERE EACH PROJECT IS IN THE PROCESS OF DEVELOPMENT. HOW LONG HAS IT BEEN IN DEVELOPMENT? WHAT ARE THE OPTIONS REALISTICALLY AVAILABLE TO THE AGENCY? WHAT IS THE BURDEN OF COSTS COMPARED TO SIMILAR JURISDICTIONS IN THE STATE? WHAT LEVEL OF LOCAL FUNDING IS ALREADY ASSUMED BY THE AGENCY? IT SHOULD BE OBVIOUS FROM THE '79 FUNDING CRISIS THAT ABRUPT CHANGES IN FUNDING POLICIES HAVE DIFFERENT IMPACTS ON DIFFERENT PROJECTS. OBVIOUSLY, PROJECTS AT THE POINT OF READY-TO-CONSTRUCT OR ACTUALLY IN CONSTRUCTION ARE IMPACTED MUCH MORE SEVERELY THAN PROJECTS IN THE FORMULATING STAGES. IF EXTENDED PERIODS OF TIME AND EFFORT WERE SPENT TO ACHIEVE THE READY-TO-CONSTRUCT STATUS, THE PROJECT IS EVEN MORE SEVERELY IMPACTED BY ABRUPT CHANGES IN THE FUNDING POLICIES.

IT IS QUITE APPARENT THAT WE ARE DEEPLY CONCERNED WITH THE EFFECTS AN ACROSS-THE-BOARD POLICY OF REDUCED FUNDING WOULD HAVE ON THE TRI-CITY SERVICE DISTRICT'S PROGRAM. THIS PROGRAM HAS BEEN UNDER DEVELOPMENT FOR 10 YEARS. AT THE OUTSET OF THE PROGRAM, EACH CITY WAS PREPARED AND FINANCIALLY ABLE TO INDIVIDUALLY CORRECT ITS PROBLEM WITH THE THEN AVAILABLE FUNDING PROGRAM. THE FEASIBILITY OF AN AREA-WIDE REGIONAL

SOLUTION WAS ENCOURAGED BY DEQ AND ACTUALLY REQUIRED BY CONDITIONS IMPOSED ON EACH OF THE CITIES' WASTE DISCHARGE PERMITS. DEQ ASSISTED IN THIS EFFORT WITH A \$100,000 LOAN TO IMPLEMENT THE STUDY. SINCE THAT TIME IN 1972, THE TRI-CITY PROJECT HAS MET EVERY REQUIREMENT OF DEQ, EPA, LCDC, AND THE PORTLAND METROPOLIAN BOUNDARY COMMISSION. IT HAS CONTINUALLY ADJUSTED ITS PROGRAM TO ACCOMMODATE EACH CHANGE IN POLICY AND EACH CHANGE IN THE FEDERAL REGULATION. THE DISTRICT HAS ACCEPTED RESPONSIBILITY FOR LOCAL FUNDING OF PROJECT COMPONENTS MANDATED BY EPA AND DEQ WHERE CONTINUED STUDIES WOULD HAVE ALLOWED FEDERAL FUNDING OF THESE COMPONENTS. WE HAVE NOW CROSSED THE THRESHOLD. WE HAVE EXHAUSTED ALL OPTIONS. WE HAVE THE VOTERS' SUPPORT TO FINANCE A VERY HEAVY LOCAL SHARE. IT IS NOW UP TO DEQ AND ITS FUTURE FUNDING POLICIES TO MATCH THE COMMITMENT OF THE TRI-CITY COMMUNITIES. WE CAN GET THE JOB DONE IF YOU WILL PROVIDE THE FUNDING AS IT IS PROPOSED IN THE PRIORITY LIST FOR FISCAL YEAR 1981 AND THE THREE SUCCESSIVE FISCAL YEARS.

I AGAIN THANK YOU MR. CHAIRMAN, MEMBERS OF THE COMMISSION, AND MR. YOUNG FOR THE OPPORTUNITY TO ADDRESS YOU. I KNOW THERE ARE OTHER PEOPLE IN OUR GROUP THAT WOULD LIKE TO ADDRESS THE COMMISSION.

Sept. 19, 1980



## Department of Environmental Quality

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-

Governor

August 28, 1980

Honorable Thomas Throop  
State Representative, District 54  
60998 Larsen Road  
Bend, OR 97001

Dear Representative Throop:

I am responding to your request for information regarding smoke management programs and practices in western Oregon. As you probably know, there are basically two such programs which are responsible for regulating the burning of forest residue materials and residue of grass seed and cereal grain fields, respectively. The State Department of Forestry is the lead agency in a multi-agency agreement, the Oregon Smoke Management Plan, designed to regulate burning in forested area of western Oregon while the Department of Environmental Quality is responsible for regulating field burning in the Willamette Valley.

The goal of both programs is, of course, to keep smoke away from population centers and the Willamette Valley in general. I have enclosed a copy of each of the several documents germane to smoke management in Oregon. The Oregon Smoke Management Plan describes the general limits that exist for forestry burning but does not describe well the current operating procedures employed by Forestry. In general, I believe these operational practices to be much more restrictive than the limits on burning described in the Plan.

Under the Plan, Forestry develops and issues regional forecasts of meteorological conditions for use by district administrators, district forestry and its own slash burning managers. Both the forecasts and an advisory are distributed to the State and Federal land managers twice each day who then make decisions regarding burning in their areas of jurisdiction. Decisions to burn specific units are then based upon this information and the other particular needs which the prescribed burn is designed to meet.

Frequently, slash fires are ignited in morning hours and burn vigorously for a few hours followed by a period of low intensity burning or smolder. The low intensity burn period is highly dependent on fuel and lasts from a few hours to a few days. A strong convective column develops during the vigorous phase and is believed to contain the major portion of the total emissions from the burn. It is the convective column which the Smoke Management Plan attempts to insure is directed away from populated areas. Secondly, the Plan is designed to limit burning such that residual smoke from the low intensity phase does not accumulate in western interior valley areas. I would estimate that the smoke from the convective column (active phase) causes most of the slash related impact in the central Oregon area while the residual smoke causes most of the Willamette Valley's slash smoke problems.

The Oregon Administrative Rules for field burning and The Smoke Management Program Operational Guidelines describe how field burning is conducted under a program which has evolved over the last twelve years. Since this program's development has received close legislative and public scrutiny, its development has been strongly influenced by legislative mandate and direct public input as well as technical feasibility and the need to sanitize fields. The result is a program designed to minimize smoke intrusions into Willamette Valley cities, particularly Eugene and Springfield. This approach is supported in the rules and operational guidelines.

Operationally, the program also takes advantage of the very rapid burning characteristics of fields (enhanced by rapid lighting techniques) and direct DEQ-to-grower communication to allow burning during relatively short periods of good ventilation that occur on otherwise prohibited days. This rapid response allows changing weather events to be followed closely so that reliance on long term forecasts is reduced and levels and locations of burning can be adjusted throughout the day to address new meteorological conditions.

Time available to conduct the burning is limited so that burning is conducted whenever conditions are available which offer minimum impact on cities and reasonable clearing of the Willamette Valley. Such useful conditions may be summarized as follows:

1. Storm front passages with excellent ventilation and typically southwesterly winds at all levels.
2. Strong flow of marine air with west to northwest valley winds, good ventilation and air mass replacement.
3. Thermally-induced marine air intrusions with west to northwest valley winds average ventilation and partial air mass replacement.

In previous year burning was limited to ventilation periods characterized by 1 and 2 and substantial north wind burning. Since north wind burning is not allowed in order to protect the Eugene-Springfield area, some burning is conducted under Regime 3. Use of such ventilation conditions is therefore relatively new and forecasting of the overall ventilation capabilities is not well developed. In addition, on such burn days, staff is usually concentrating on selecting areas for burning to avoid local direct smoke impacts.

On two occasions this season, burning was conducted under relatively strong thermally-induced marine air intrusion circumstances with low pressure in central Oregon. Though this situation did provide adequate clearing of the Valley, the smoke eventually resided in the Bend area the next morning. Visibilities were reduced and particulate levels elevated.

Honorable Thomas Throop

Page 3

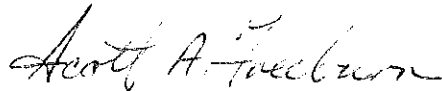
August 28, 1980

Such circumstances are not common (especially during late summer) and have not been routinely considered in the past. However, corrective measures are needed to avoid a repetition of these situations. Our staff believes a procedural change may be incorporated in the guidelines to specifically review the forecasted potential for smoke in Bend and Redmond based upon the projected burning regime and wind directions. Thus, smoke considerations in Bend and Redmond would be formalized as part of our daily review of burning releases.

As you discussed with Mr. Weathersbee, the Department will be prepared to thoroughly discuss and respond to questions regarding field burning smoke management at the EQC meeting in Bend on September 19. In addition, I have contacted the Department of Forestry and ask that they be represented at that meeting also.

Please contact me if you have any questions regarding the enclosed material.

Sincerely,



Scott A. Freeburn, Coordinator  
Field Burning Program

SAF:jn

Enc. 3

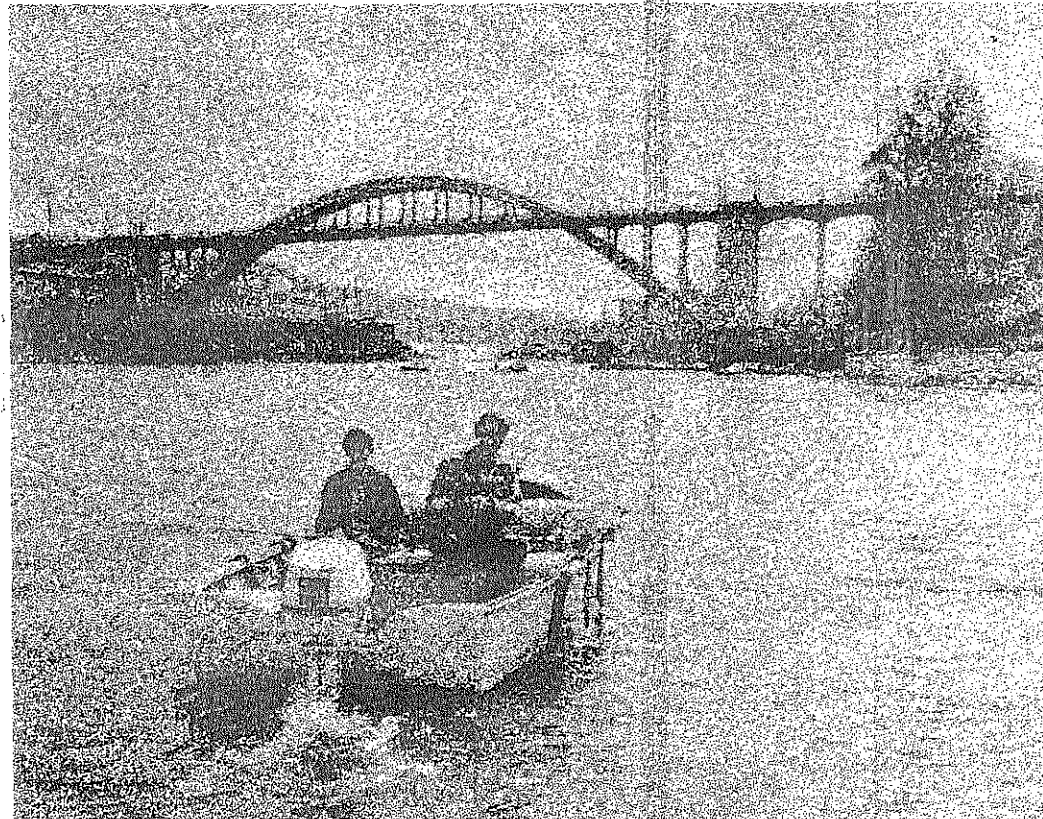
cc: E. J. Weathersbee  
W. H. Young  
Environmental Quality Commission

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# What Do I Need to Know When I **VOTE JUNE 24** on Formation of the Tri-City Service District?

Oregon City, West Linn and Gladstone propose an area-wide sewerage facility to eliminate water pollution in the Willamette, Clackamas, and Tualatin Rivers and to provide for orderly development. This pamphlet explains what is proposed.



Coordinator  
Department of Environmental Services  
902 Abernethy Road  
Oregon City, Oregon 97045

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For additional information,  
contact your **City Hall**  
or  
Clackamas County  
**Department of Environmental Services**  
902 Abernethy Road  
Oregon City, Oregon 97045  
655-8521

**June 1980**

### **What Is the Tri-City Election on June 24?**

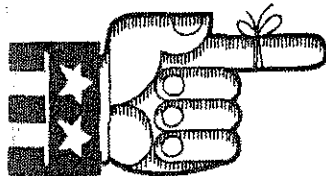
This pamphlet presents facts about a sewerage facilities program for Oregon City, West Linn, and portions of Gladstone—a program to eliminate existing pollution of the Willamette, Clackamas, and Tualatin Rivers in our community.

At the June 24, 1980 election you can decide on forming the Tri-City Service District to carry out the sewerage improvement program. In September a second election will be called to seek voter approval of a bond sale to help finance the improvements. A yes vote at both elections is required before any program can be implemented.



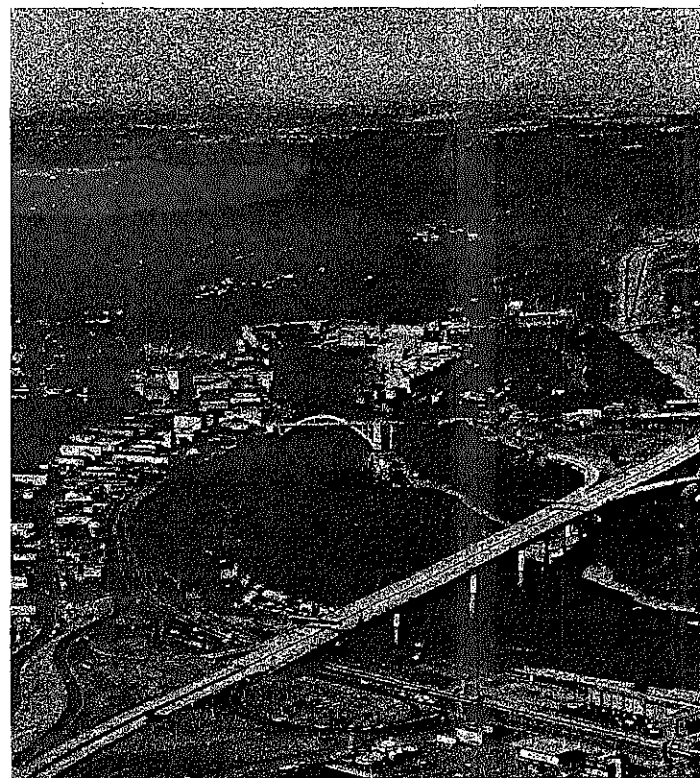
## VOTE TUESDAY, JUNE 24

Your vote at the June 24 Special Election will help decide whether or not Oregon City, West Linn, and Gladstone will join together with the County in forming the Tri-City Service District. This is not a tax measure. Another election would be required before any property taxes could be levied.



# VOTE

June							1980
S	M	T	W	T	F	S	
1	2	3	4	5	6	7	
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30						



### Why Form a Tri-City Service District?

Over the past several years the cities have grown in both area and population, but improvements to the existing sewerage systems have not kept pace. The present systems, with some parts nearly a half century old, are deteriorating and overloaded. Formation of a Tri-City Service District can correct deficiencies, eliminate present water pollution problems, and insure more livable cities in the future.

---

## What About Raw Sewage in the River?

Now, raw sewage overflows directly into the Willamette River from 19 points in Oregon City whenever there is a moderate rainfall. Raw sewage overflows occur 180 days out of each year due to excessive rainwater getting into the sewer system, and overloading the treatment plant.

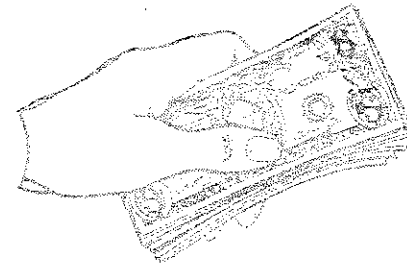
In Gladstone, raw sewage overflows into the Clackamas River at two locations each time there is measurable rainfall. One of the overflows is located within 200 feet of the water intake for a city's water supply.

West Linn has problems, too—with at least eight known points where overflows occur and raw sewage goes into the Willamette River on at least 90 days each year (due to sewage flows exceeding plant capacity).

## What Is the Building Moratorium?

Raw sewage pollution of the rivers became so severe that in 1977 the State Department of Environmental Quality (DEQ) imposed limits on new sewer connections in Oregon City and Gladstone. The economies of each community have suffered, and will continue to do so until the building moratorium is lifted. New housing construction has been stopped and major commercial and industrial developments turned away.

West Linn may face the same building moratorium within two years unless sewer improvements are underway within that time.



Funding the local share of the 10-year construction program will require the authorization to sell \$25 million in General Obligation Bonds. If the voters approve formation of the district on June 24, a September 1980 election will be set to ask voter authorization to sell these bonds as needed over the 10-year period.

## What About Local Service Charges and Taxes?

Initially charges will be the same in all three cities. The service charge will be \$6 per month for a single-family residence. Commercial and industrial service charges will be computed on an equivalent dwelling unit basis. The connection charge for new sewer service connections will initially be \$1,000 for a new single-family dwelling or equivalent dwelling unit. This connection charge will automatically increase \$100 each year.

Repayment of the General Obligation Bonds will include a Property Tax Levy each year. The amount of the yearly bond payment that cannot be made from other revenues will be collected in the form of a property tax. It is estimated that this would amount to 50 cents per \$1,000 of assessed valuation. For a home valued at \$50,000, this would amount to \$25 a year.

The Tri-City Service District's uniform regulations for the treatment of sewage will be administered by each city as new residential, commercial, and industrial customers are added to their system. An equitable rate schedule will support the operation of the area-wide facilities and provide operating revenues for each city.

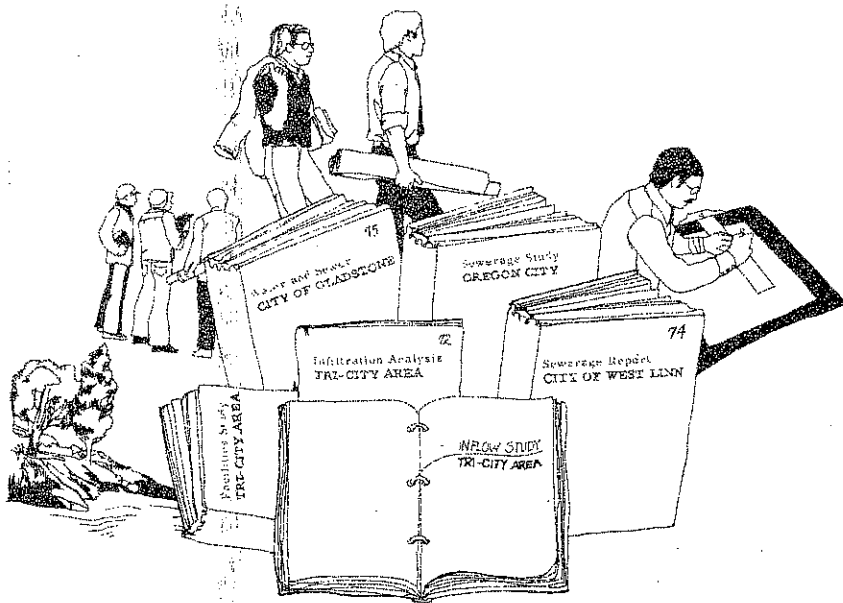
### **What Improvements Are Proposed?**

- Construct the Tri-City sewage treatment plant with a daily capacity of 14 million gallons.
- Rehabilitate existing sewage collection systems in each of the three cities.
- Construct major area-wide interceptor sewers.
- Construct four major sewage pumping stations and force main systems.
- Separate combined sewers within each city.

### **What Will It Cost?**

All costs except separation of storm and sanitary sewers are eligible for 75 percent federal funding. The sewer separation portion of the work will be financed by local funds. Phased construction of the total program over 10 or more years will influence the ultimate costs because of inflation. When finally completed, the costs will total approximately \$58 million of which \$33 million is the estimated federal grant portion.





## Has Anything Been Done About the Pollution?

Most Willamette Valley residents can recall when the lower Willamette River was so badly polluted that it was called an "open sewer." Recently much has been done to correct this problem.

Industries have spent millions to clean up the Willamette River. Salem and Corvallis have made major improvements to their sewerage systems. The Eugene-Springfield area has initiated a \$100 million sewerage system improvement program to eliminate pollution.

Fish have returned. People can swim in the river. Potential health hazards are less.

## Do Service Districts Really Work?

County service districts, like the one proposed, have been effective in correcting water pollution problems on an area-wide basis. Clackamas County Service District No. 1 completed a \$22 million sewerage system in 1974, and now serves over 6100 customers in north Clackamas County, plus Milwaukie and Johnson City. The entire urban area of Washington County, including 10 cities and the unincorporated areas surrounding them, is served by the Unified Sewerage Agency. Recently, the Mt. Hood communities of Wemme, Welches, and Rhododendron formed a county service district and will initiate a \$4.5 million sewerage system program in 1980.

## What Will the Tri-City Service District Do?

The Tri-City Service District will construct, operate, and maintain only those sewerage facilities that serve jointly the needs of the Tri-City area—the sewage treatment plant, pumping stations, large-size interceptor sewers, etc. Portions of the existing sewerage facilities will become a part of the area-wide system, and the cities will be reimbursed for their costs of these facilities.

The cities will continue to handle all administration of the sewage collection systems within their communities, and administer the development within the city.



## How Can We Work Together?

Formation of the Tri-City Service District allows neighboring cities to work collectively to solve a problem common to all, and to equitably share responsibilities.

The law designates the Board of County Commissioners as the governing body for the proposed Tri-City Service District with community input from a Citizens Advisory Committee made up of representatives from each of the three cities. The Advisory Committee can make recommendations to the Board of Commissioners on all matters relating to the administration of the Tri-City Service District.

Oregon City, West Linn, and Gladstone have not ignored the sewage pollution problem. Together with the County they undertook an area-wide study financed by local funds, a DEQ loan of \$100,000 and a Federal Environmental Protection Agency grant of over \$350,000. Now we have a detailed sewerage facilities plan for the Tri-City area—one that is approved by each of the three city councils, by the County, DEQ, and the Environmental Protection Agency.

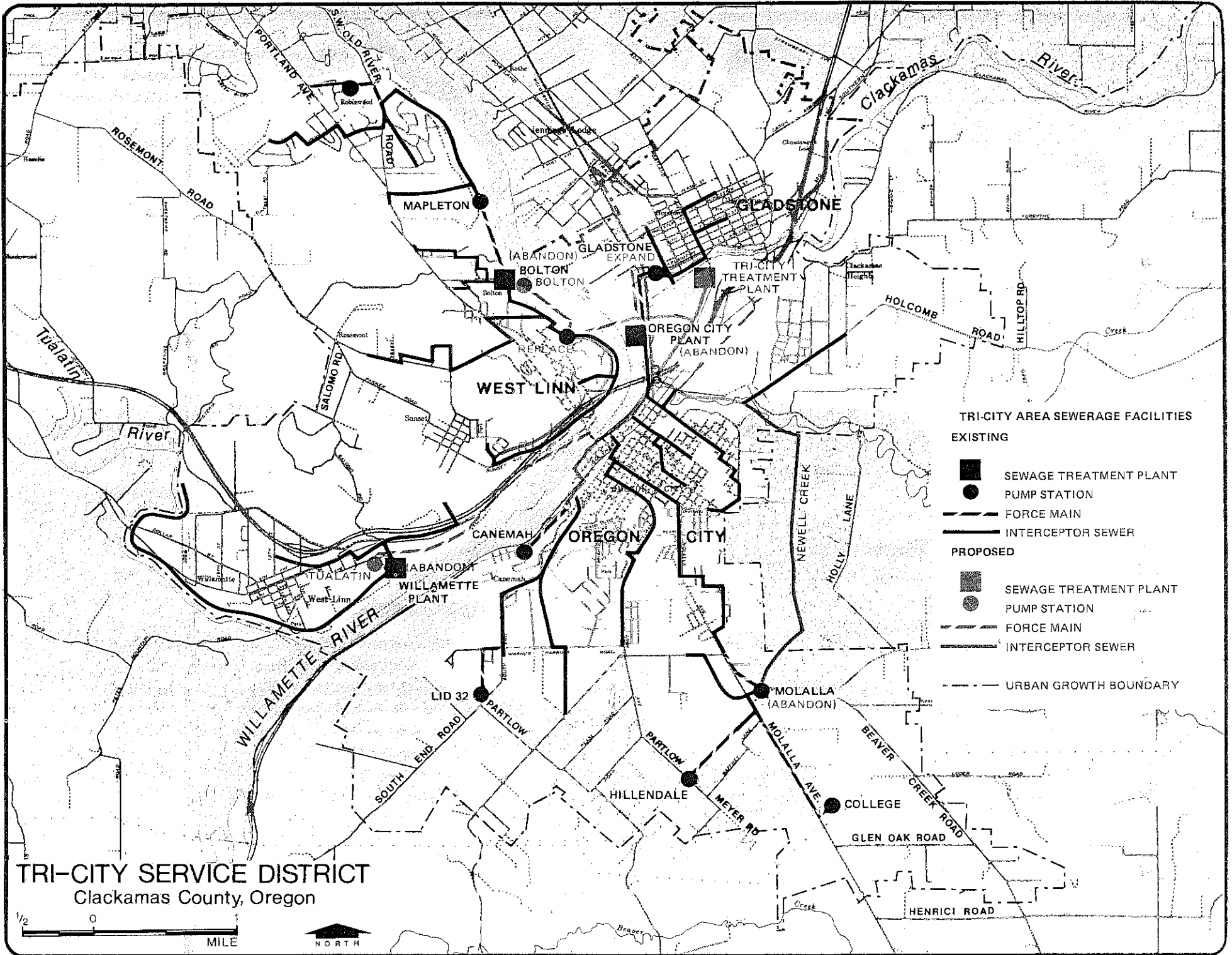
## Will Approval Mean Population Growth?

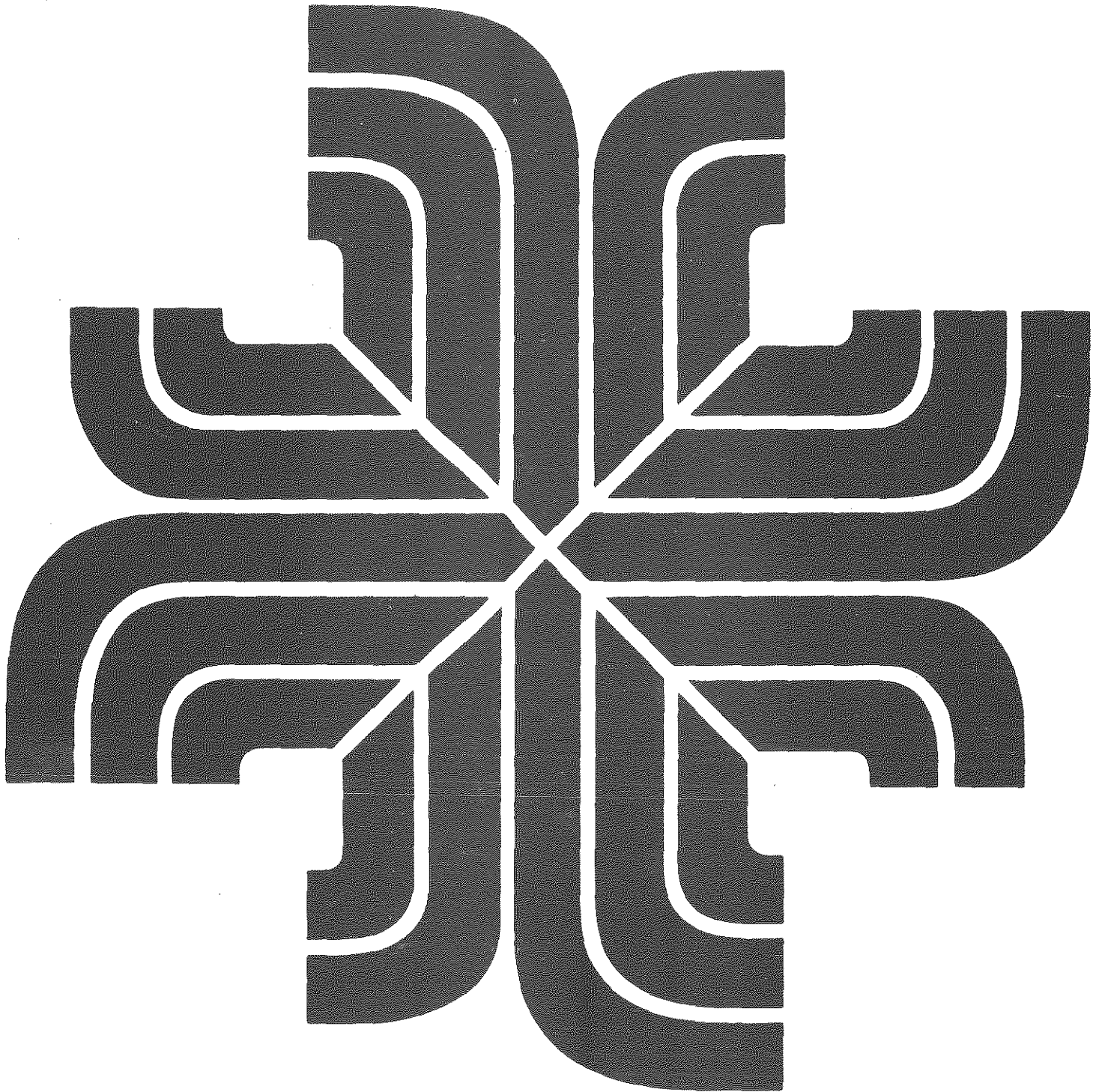
Formation of the Service District will allow West Linn, Gladstone, and Oregon City to plan for orderly development according to each's comprehensive plan. Businesses and industries that wish to expand will be able to have sewer connections. Homes, which planning and zoning allow, can be built.

The proposed Tri-City Service District includes only land inside the cities. Areas within the urban growth boundary would be served as they are annexed to a city.

## What Is Proposed Now?

Major improvements are required to correct existing pollution problems and to prevent their reoccurrence. Deteriorated sanitary sewer systems must be rehabilitated. Sewers must be constructed that separate domestic sewage flows from stormwater flows. A new Tri-City sewage treatment plant needs to be constructed in the industrial area north of Oregon City to replace the three existing obsolete plants on the Willamette River. The proposed Tri-City plan is the least costly and the most effective way to correct the water pollution problems of the area.





**SEWERAGE FACILITIES PLAN  
VOLUME 3-FINANCING**

**Tri-City Area  
Clackamas County, Oregon**

**December 1979**

**Bartle Wells Associates  
Municipal Financing Consultants, San Francisco**

SEWERAGE FACILITIES PLAN  
VOLUME 3  
FINANCING

TRI-CITY AREA  
CLACKAMAS COUNTY, OREGON

CITY OF OREGON CITY  
Alfred Simonson, General Manager

CITY OF GLADSTONE  
Leonard A. Strobel, City Administrator

CITY OF WEST LINN  
Clifford Sanders, City Administrator

CLACKAMAS COUNTY  
John C. McIntyre, Director of  
Environmental Services  
David J. Abraham, Utilities Director

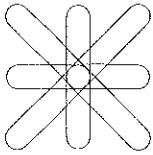
STRAAM Engineers, Inc.  
Consulting Engineers  
Portland

CH<sub>2</sub>M Hill  
Consulting Engineers  
Portland

December 1979

BARTLE WELLS ASSOCIATES  
Municipal Financing Consultants  
San Francisco





**BARTLE WELLS ASSOCIATES** MUNICIPAL FINANCING CONSULTANTS

December 19, 1979

Board of Commissioners, Clackamas County  
City Councils of Oregon City, West Linn, and Gladstone

Dear Commissioners and Council Members:

We are pleased to submit our December 1979 revised financial plan for the adopted Sewerage Facilities Plan, Tri-City area, prepared by the engineering firms of STRAAM Engineers, Inc., and CH<sub>2</sub>M Hill. The financial plan (1) recommends the formation of a county service district (Tri-City Service District, or TCSD) to finance, construct, and operate the regional system; (2) shows how TCSD can fund initial project costs and establish an equitable revenue structure to meet annual expenses; and (3) provides for the acquisition of the existing sewerage facilities of the cities by TCSD.

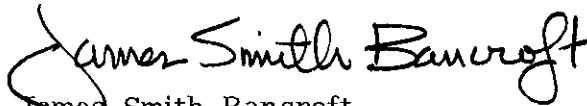
The financial plan assumes that TCSD will begin operating existing treatment plants and levying regional charges by July 1, 1980. The recommended regional service charge is \$6 per month per equivalent dwelling unit in 1980/81, and the recommended connection charge is \$1000 per equivalent dwelling unit, beginning in 1980/81. Charges are projected to escalate as discussed in the financial plan. A TCSD tax rate of \$0.50 per \$1000 TCV is scheduled to begin in 1982/83.

Revenues earned by TCSD will be shared with the cities on an equivalent-dwelling-unit basis, providing the cities with sufficient funds to run their own collection systems. The charges outlined above will be adequate to meet all local and regional sewage treatment costs and the cities will not need to levy charges of their own for sewerage operations.

The financial plan shows four bond sales by TCSD over the period 1981-1989, totaling about \$25 million. Sale of about \$8 million of this total, scheduled for inflow abatement work from 1986 to 1989, may not be necessary in entirety, depending on the State Department of Environmental Quality's final decision regarding the sizing of mains and treatment capacity for summertime combined sewer flows. We recommend that this issue be resolved before voters are asked to authorize a fixed amount of bonds.

We are indebted to the staffs of the cities and the county for their cooperation in supplying information for the development of this financing plan. We are pleased to have participated in this challenging project and hope that our report will serve the cities and the county in their work.

BARTLE WELLS ASSOCIATES

  
James Smith Bancroft  
Project Manager

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## INTRODUCTION

In October 1977, Stevens, Thompson & Runyan, Inc. (now STRAAM Engineers, Inc.) prepared a draft facilities plan for sewage treatment, transmission and disposal facilities to serve the Tri-City region, the area comprising the cities of Gladstone, Oregon City, and West Linn. In December 1978 the final plan was submitted as Volume 1 of a two-volume report. Volume 2 was prepared and submitted, also in December 1978, by CH<sub>2</sub>M Hill and addressed the sludge treatment and disposal element of the plan.

The facilities plan outlines a regional sewerage approach that is cost effective and eligible for 75 percent funding from the Environmental Protection Agency (EPA). The plan also defines a 21-square-mile study area which conforms to the philosophy of urban containment as suggested by the Columbia Region Association of Governments (CRAG).

Bartle Wells Associates was retained to recommend an institutional/financial plan to implement the sewerage facilities plan. A financial plan, based on Stevens, Thompson & Runyan's cost estimates contained in their October 1977 draft, was submitted in June 1978 and several of its suggestions have already been implemented. A revised financial plan, which incorporated the finalized cost estimates provided by STRAAM Engineers in their December 1978 facilities plan, was submitted by Bartle Wells Associates in March 1979. This revision incorporated the basic assumptions of the first financial plan and simply restructured the revenues needed to pay for increased construction and O&M costs.

Since preparation of the second financial plan, new requirements established by the EPA and the State of Oregon Department of Environmental Quality (DEQ) have substantially altered costs of the project, particularly the requirement that the three cities, collectively or individually, bear much of the cost of separating their storm sewers from their sanitary sewers ("sewer separation"). This requirement alone adds more than \$8 million (1980 dollars) to the local costs of the project. Furthermore, the inability to attain EPA grant funds for the project during federal fiscal years 1978/79 and 1979/80 has delayed construction considerably, thereby increasing construction costs.

This third financial plan, dated December 1979, examines the current costs of the project and presents a financing strategy which allocates the payment burden to all users of the system according to the benefit they receive. This financial plan pays particular attention to the expected population growth in the Tri-City area and provides that new users pay their fair share of costs through connection charges. All information in this third revision is the best currently available.

## PREVIOUS TRI-CITY STUDIES

Regional sewerage planning has been underway in the tri-city area since the early 1970s. Several factors led to the reduction in scope of the planning area, which originally included about 125 square miles in and surrounding the three cities. The first comprehensive sewerage facility plan, published by Stevens, Thompson & Runyan, Inc. (now STRAAM Engineers, Inc.) in 1973, outlined a regional approach that agreed with the recommendations of CRAG regarding regionalization or combined treatment of sewage. This original plan was reduced in scope in 1974 to comply with Boundary Commission concerns about serving unincorporated areas, and to reduce the cities' financial burden in providing sewerage for those areas. A small portion of unincorporated area was retained in the planning.

In 1975, Stevens, Thompson & Runyan, Inc., published a revised facilities plan, and Bartle Wells Associates published a sewerage financing plan for the reduced project. The 1975 financing plan recommended formation of a county service district to finance, construct, and operate regional sewerage facilities. The county service district (Tri-City Service District, or TCSD) would hold an election to authorize general obligation bonds to finance capital costs. The plan also outlined a system of rates and charges for operation and maintenance, bond service, and other regional expenses. However, voters defeated the proposal to form TCSD at an election in March 1976. It became clear that residents of unincorporated areas did not want to participate in the regional sewerage plan.

At present, the project area has been reduced as described in the current STRAAM Engineers, Inc. and CH<sub>2</sub>M Hill sewerage facilities plan, published in December 1978. Phase I of the facilities plan is concerned with sewerage facilities only in the three cities. The Bartle Wells Associates institutional/financial plan contained herein addresses these Phase I financial needs.

## THE PROJECT

### EXISTING SEWERAGE FACILITIES

The agencies providing sewer service in the study area are the cities of Gladstone, Oregon City, and West Linn.

- o Gladstone operates its own sewer collection system in the central and southern parts of the city, and pumps sewage to Oregon City for treatment. Oregon City has treated Gladstone's wastewater since 1953. Oak Lodge Sanitary District and Clackamas County Service District treat wastewater from other parts of Gladstone which are not included in the study area.
- o Both Oregon City and Gladstone have combined storm and sanitary sewer collection systems which must be separated.
- o West Linn operates two separate sanitary sewer collection systems and two treatment plants. The Bolton treatment plant serves the north part of the city and its central business district. The Willamette treatment plant serves the southern part of the city.

### THE FACILITIES PLAN

STRAAM Engineers, Inc. and CH<sub>2</sub>M Hill have designed sewage treatment and collection facilities to serve the three cities. The plan also considers the immediately adjacent urbanizing unincorporated areas, which, during the expected life of the facilities, may in fact become part of one of the cities. The urbanizing areas are primarily concentrated adjacent to Oregon City.

The engineering plan has two phases. Phase 1 is designed to consolidate the sewage treatment facilities of the three cities. Facilities include interceptors, sewer system replacement and rehabilitation, and treatment plant construction. Phase 2 facilities, to be built at a future date, are designed to extend the basic system to serve urbanizing areas as needed.

### PROJECT COSTS

Table 1 shows Phase 1 facilities costs, as estimated by STRAAM Engineers. Costs are based on an Engineering-News Record (ENR) index of 3400 (1980 dollars). Estimates contain 30 percent for project administration, engineering, legal costs and contingencies.

Table 1 shows grant-eligible costs divided into four segments and escalated to the appropriate years of construction, totaling \$44,120,000. Twenty-five percent, or \$11,030,000, will comprise the local share, the remainder being financed by EPA grants.

TABLE 1  
 TRI-CITY SERVICE DISTRICT  
 TOTAL COSTS - PHASE I FACILITIES

FEDERAL FISCAL YEAR (10/1 - 9/30)

Cost 1980 Dollars (ENR = 3400)	Approximate Design- Months	Approximate Construct- Months	Description	Item	FY 1980	FY 1981	FY 1982	FY 1983	
				PRELIMINARY WORK					
\$25,000,000	12	26	11.4 mgd, 20/20 effl.	SEGMENT I - GRANT-ELIGIBLE					Total escalated grant eligible costs \$44,120,000
130,000	2	--		1. STP-excluding Land Cost					
790,000	2	--		2. Oregon City Rehabilitation					
270,000	2	--		3. West Linn Rehabilitation					
480,000	6	6	3,250'-42"	4. Gladstone Rehabilitation					
1,310,000	6	6	1,800'-66"; 2600'-72"	5. Willamette Interceptor - 42"					
130,000	4	4	1,850'-24"	6. Gladstone Interceptor - 66", 72"					
550,000	6	10	2600/4000 gpm	7. Gladstone Pump Station					
110,000	4	4	4,000'-18"	8. Gladstone Force Main					
330,000	4	4	1,900'-48"	9. Interceptor from Oregon City STP - 48"					
\$29,100,000				10. Estimated Expenditures - \$	1,030,000	11,000,000	10,310,000	14,000,000	
				SEGMENT II - GRANT-ELIGIBLE					
\$ 740,000	6	6	7,700'-21", 27", 36"	1. River St. Interceptor					
1,550,000	6	12	7,300/9,100 gpm	2. River St. Pump Station					
310,000	4	4	3,250'-24"	3. River St. Force Main					
670,000	6	10	2,200/3,400 gpm	4. Bolton Pump Station					
110,000	4	4	2,800'-16"	5. Bolton Force Main					
\$ 3,380,000				6. Estimated Expenditures - \$	270,000	2,360,000	1,250,000		
				SEGMENT III - GRANT-ELIGIBLE					
\$ 360,000	5	6	3400'-24"; 700'-36"	1. Willamette Interceptor - 24", 36"					
800,000	5	6	300'-42"; 4300'-48"	2. Abernethy Creek Interceptor - 42", 48"					
820,000	5	6	3500'-18"; 4300'-21"	3. Newell Creek Interceptor					
\$ 1,980,000			4000'-24"	4. Estimated Expenditures - \$	10,000	170,000	2,280,000		
				SEGMENT IV - GRANT-ELIGIBLE					
\$ 710,000	6	10	2,500/4,200 gpm	1. Tualatin Pump Station					
410,000	6	6	9,400'-18"	2. West Linn Willamette Force Main					
\$ 1,120,000				3. Estimated Expenditures - \$	40,000	420,000	80,000	900,000	
\$35,580,000				TOTAL GRANT-ELIGIBLE EXPENDITURES - \$	1,350,000	13,950,000	13,920,000	14,900,000	
				NON-GRANT-ELIGIBLE					
\$ 500,000	to be determined			1. STP Land Cost - \$	500,000	Design and Construction			
7,130,000				2. Oregon City Inflow Abatement					
460,000				3. West Linn Inflow Abatement					
1,130,000				4. Gladstone Inflow Abatement					
\$ 9,420,000				TOTAL NON-GRANT-ELIGIBLE					
\$45,000,000				TOTAL PROJECT COST					

LEGEND

- Design
- Review, grant, administration, advertise, receive bids, and award construction contract (minimum 4-5 months)
- ==== Construction
- ===== Evaluation of sewer rehabilitation

Notes:

1980 costs escalated at 12 percent per year.

Source: STRAAM Engineers, Inc., October 3, 1979 projections.

Additionally, the table shows \$9,420,000 of non-grant-eligible costs for land and inflow abatement. About \$500,000 of the non-grant-eligible work apply to improvements on private property which will be financed by property owners. These \$500,000 have been excluded from the costs detailed in Table 8.

Except for STP land costs, Table 1 does not specify a construction schedule for any of the non-grant-eligible costs. This financial plan outlines such a schedule in Table 8 and the accompanying text.

## REGIONAL AND LOCAL STATISTICAL INFORMATION

### CURRENT USERS

Table 2 estimates the number of equivalent dwelling units (EDU's) as of December 31, 1979 to be served by TCSD. The estimates are based on interviews with city officials and data gathered by Bartle Wells Associates. For the system as a whole, 13,160 EDU's are estimated as of 12/31/79, including commercial/industrial users.

TABLE 2  
TRI-CITY SERVICE DISTRICT  
EQUIVALENT DWELLING UNITS AS OF DECEMBER 31, 1979

	Equivalent Dwelling Units	Percent of Total
<u>Oregon City</u>		
Residential	4,990 <sup>1</sup>	38%
Commercial/Industrial	1,450 <sup>1</sup>	11
<u>West Linn</u>		
Residential and Commercial/Industrial	4,220 <sup>2</sup>	32
<u>Gladstone (Oregon City served area)</u>		
Residential	2,320 <sup>3</sup>	18
Commercial/Industrial	180 <sup>3</sup>	1
	13,160	100%

1 - Based on service charge revenues divided by EDU user charge.

2 - City estimates. Commercial connections counted as 1 EDU.  
Apartments counted as ½ EDU.

3 - City estimates. Commercial connections counted as 1 EDU.

### PAST GROWTH RATES

Population - Table 3 shows past growth in the Tri-City area in both population and assessed valuation. The population data indicates an annually compounded growth rate of 5.5% between 1973 and 1977. In 1977 a growth moratorium, as described in the table, was placed on Oregon City by the DEQ because of sewage treatment problems. This caused a decrease in Oregon City's growth rate--from 6% in the five-year period ending July 1, 1977, to 4.3% in the one-year period ending July 1, 1977. The moratorium also affected the portion of Gladstone served by Oregon City, but, as the table shows, growth in the other areas of Gladstone more than compensated for the slowdown in Oregon City served area.



TABLE 3  
 TRI-CITY SERVICE DISTRICT  
 GROWTH INDICATORS

	July 1			1973-77 Compounded Growth Rate	1977-78 Growth Rate	1973-78 Compounded Growth Rate
	1973	1977	1978			
<u>Population<sup>1</sup></u>						
Oregon City	11,185	14,100	14,700	6.0%	4.3%	5.6%
West Linn	8,130	10,355	11,600	6.2	12.0	7.4
Gladstone						
(entire city) <sup>2</sup>	<u>7,725</u>	<u>8,985</u>	<u>9,350</u>	<u>3.8</u>	<u>4.1</u>	<u>3.9</u>
	27,040	33,440	35,650	5.5%	6.6%	5.7%
<u>Assessed Valuation</u>						
Oregon City	\$136,130,790	\$215,257,910	\$246,379,700	12.1%	14.4%	12.6%
West Linn	86,008,710	151,006,940	185,844,030	15.1	23.1	16.7
Gladstone						
(entire city)	<u>56,551,370</u>	<u>103,840,330</u>	<u>119,027,520</u>	<u>16.4</u>	<u>14.6</u>	<u>16.1</u>
	\$278,690,870	\$470,105,180	\$551,251,250	14.0%	17.3%	14.6%

Note: Moratorium on new building took effect in Oregon City in May 1977. As of November 1, 1979, Oregon City estimates that its future growth is limited to about 290 equivalent dwelling units until the moratorium is lifted. Gladstone estimates that future growth in "Oregon City" served areas is limited to about 150 EDU's.

1 - Portland State University estimates.

2 - City estimates that growth rates for entire city, as shown here, are higher than growth rates in "Oregon City" served areas.

Assessed Valuation - Table 3 also examines growth in assessed valuation (AV) which was 14%, compounded annually, for the tri-city area between 1973 and 1977. Table 4 shows the rates of inflation for the same period as measured by the Consumer Price Index (CPI). For the period 1973-1977, the 14% growth in AV, when adjusted for inflation according to the CPI, becomes 4.9%. Thus, both the population and AV data indicate a pre-moratorium growth rate of about 5 percent.

Commercial/Industrial - One other growth factor, besides population and AV, deserves attention: commercial and industrial growth. For Oregon City, Bartle Wells Associates examined building permit data from 1976 to 1979 and assigned an appropriate number of EDU's to each new commercial/industrial user based on its estimated strength and flow. In the three-year period, adjusted for the moratorium, Oregon City averaged 60 new commercial/industrial EDU's per year. City officials in Gladstone and West Linn have indicated that their commercial/industrial growth is not significant enough to separate from residential growth projections.

TABLE 4  
TRI-CITY SERVICE DISTRICT  
INFLATION INDICATORS

Year	Consumer Price Index <sup>1</sup>
1973	127
1974	143
1975	157
1976	167
1977	180
1978	198

Annually compounded growth rate

1973-77	9.1%
1973-78	9.3%

1 - Portland area, annual average (1967 = 100)

EXISTING RATES AND CHARGES

Each city has its own rate structure for sewer users, as shown in Table 5. Monthly sewer service charges (which may actually be billed on a bimonthly basis) are \$3 per month for residents in Oregon City, \$3.15 per month in West Linn and \$4.50 per month in Gladstone. Commercial and industrial rates in Gladstone vary according to city ordinance, and in Oregon City and West Linn they are based on water usage. All three cities have a connection charge, with reductions for subsequent units in a development or additional toilets in a commercial establishment. West Linn also has a systems development charge.

TABLE 5  
LOCAL SEWERAGE AGENCIES  
SYSTEM CHARGES 1979/80

	Monthly Sewer Service Charge	Connection Charge	Development Charge
<u>Oregon City</u>			
Residential	\$3.00	\$575 <sup>1</sup>	NONE
Commercial, industrial	3.21 (min.) <sup>2</sup>	575 <sup>1</sup>	NONE
<u>West Linn</u>			
Residential	\$3.15	\$350 <sup>3</sup>	\$350 <sup>4</sup>
Commercial, industrial	3.15 (min.) <sup>5</sup>	350	350 <sup>4</sup>
<u>Gladstone</u>			
Residential	\$4.50	\$570	NONE
Commercial, industrial	4.50 (min.) <sup>6</sup>	570 <sup>7</sup>	NONE

- 1 - For multiple family units, each additional unit is \$350; for commercial or industrial, each additional unit is \$75 per toilet.
- 2 - Based on 50% of lowest monthly water charge in either January, February, or March; minimum water charge is \$10.85 bimonthly.
- 3 - For multiple family units, second unit is \$200, each additional unit is \$100.
- 4 - Systems development charge, in addition to connection charge, is imposed in two parts; \$0.10 per square foot of building area connection fee (\$150 min.) and \$0.02 per square foot of land area (\$200 min.). Large commercial parcels charged \$400 minimum. Proceeds (50% for water, 25% each for sewer and streets) are to be used only for improvements to their respective systems.
- 5 - 70% of water bill.
- 6 - Charges vary as specified by ordinance, depending on type of user.
- 7 - Each additional commercial toilet unit is \$100.

## INSTITUTIONAL ARRANGEMENT

The regional project requires a management agency with the requisite power to satisfy PL 92-500, Section 208, and to implement the regional project. The nature of this agency, its powers, and its formation have been discussed twice before in the March 1979 and June 1978 financial plans and by reference are included herein. The name of the regional agency will be Tri-City Service District (TCSD), a county service district formed pursuant to Oregon Revised Statutes. Table 6 summarizes the responsibilities of TCSD and the three participating cities in the regional sewerage program.

TABLE 6  
 TRI-CITY INSTITUTIONAL PLAN  
 BASIC MODEL

Element	City Role	TCSO Role
Ownership	Own collection systems	Own regional treatment plant and connecting interceptors and pump stations
Operation and Maintenance	Operate and maintain own collection systems	Operate and maintain regional treatment plant, interceptors, and pump stations
Plan, Design, Construct	Local collection systems, inflow abatement projects manageable at local level	Regional treatment plant, pump stations, force mains and interceptors between pump stations and treatment plants, subsequent additions, inflow abatement projects not manageable at local level, grant-fundable sewer rehabilitation
Annex, Extend System, Issue Permits	Annex new service areas to city, extend system, issue permits	Concurrent annexation to TCSO
Regulate Sewer System Use	Adopt sewer use ordinance consistent with regional standards	Set regional standards consistent with NPDES permit; implement industrial waste control program
Set Monthly Service Charges and Connection Charges		Adopt rates and charges for entire system, upon consultation with cities; rates and charges adopted on EDU basis to provide for local and regional capital and O&M expenses
Billing and Collection	Prepare bills and collect revenues	No direct billing
Issue Debt, Receive Grants	Finance collection system additions and one-half of inflow abatement work	Issue debt for regional facilities; receive federal grants; finance one-half of inflow abatement work

## FINANCING PLAN

The objective of the financing plan is to provide an equitable method for cost sharing among the three cities. Elements of the regional sewerage project costs include:

- o Capital costs for construction of Phase I sewerage facilities, including combined sewer separation.
- o Payments to cities for acquisition of existing major facilities.
- o Operation and maintenance costs for new regional wastewater facilities.
- o Payment of principal and interest on new debt service.
- o Cities' individual operation and maintenance costs for collection systems and payments on outstanding sewer bonds.

### SOURCES OF CAPITAL FUNDS

EPA is the source of the major portion of construction funds. Grant-eligible facilities receive 75 percent funding under the EPA grant program. DEQ acts as administrator for these grants.

Summary of Costs - Table 7 summarizes the costs shown in Table 1 and estimates a total local share of \$24,690,000. The remaining \$33,090,000 will be paid by EPA grants. Table 8, discussed below, details how the inflow abatement costs of \$13,160,000 are determined for Table 7.

Inflow Abatement Cost Distribution - This financial plan uses a ten-year construction program for the inflow abatement program, beginning in 1981. The actual schedule may differ from this ten-year schedule. The cities and district plan to correct the inflow problems as growth occurs and the needed revenues become available. In any event the work will begin with the district's first bond sale.

Table 8 allocates the inflow abatement costs (1980 dollars) 50% to TCSD and 50% to the cities. The 50/50 split results in a \$4,110,000 allocation to TCSD and \$4,110,000 to the cities (1980 dollars). At the bottom of Table 8 these 1980 costs are escalated forward to estimated times of construction. This financial plan has TCSD assume the initial thrust of the inflow abatement program at the same time as other Phase I facilities are being designed and constructed--in other words, the period 1981-1984. TCSD's 50% share escalates to \$5,160,000 as shown. This financial plan has the cities assume the second stage of the inflow abatement program during 1985-90. Their estimated escalated costs of \$8,000,000 could be financed through three sources:

TABLE 7  
 TRI-CITY SERVICE DISTRICT  
 LOCAL COSTS - PHASE I FACILITIES

	Total Costs Escalated to Time of Construction
<u>Grant Eligible</u>	
Segment I	\$36,340,000
Segment II	3,880,000
Segment III	2,460,000
Segment IV	1,440,000
	<u>\$44,120,000<sup>1</sup></u>
<u>Non Grant Eligible</u>	
Land Cost	\$ 500,000 <sup>1</sup>
Inflow Abatement	13,160,000 <sup>2</sup>
	<u>\$13,660,000</u>
<u>Total Costs</u>	\$57,780,000
<u>Local Share</u>	
25% share of grant eligible costs	\$11,030,000
100% share of non-grant-eligible costs	13,660,000
Total Local Share	<u>\$24,690,000</u>

- 1 - Engineer's 1980 (ENR = 3400) estimates escalated to midpoint of construction at 12% per year.  
 2 - Engineer's 1980 (ENR = 3400) estimates escalated to various construction points as shown in Table 8. Excludes \$500,000 to be borne by property owners for infiltration abatement.

1. City reserves
2. TCSD reserves
3. Bonds sold by TCSD on behalf of the cities

Alternatives 2 and 3 would take the form of loans by TCSD to the needy cities. The cities would repay these loans in a manner described later in the section INFLOW ABATEMENT FINANCING. If TCSD needed to sell bonds on behalf of the cities, the scheduling could take place as outlined in Table 9 and the text which follows.

TABLE 8  
 TRI-CITY SERVICE DISTRICT  
 INFLOW ABATEMENT COSTS

Total costs 1980 (ENR = 3400)	\$8,720,000 <sup>1</sup>
Less amount borne by property owners	(500,000)
	<u>\$8,220,000</u>
To be borne by TCSD	\$4,110,000 <sup>2</sup>
To be borne by cities	4,110,000 <sup>2</sup>
	<u>\$8,220,000</u>
<u>Escalated Costs</u>	
TCSD:	
4-year construction program, 1981-1984	\$ 5,160,000 <sup>3</sup>
\$4,110,000 escalated to midpoint at 12%/year	
Cities:	
6-year construction program, 1985-1990	\$ 8,000,000 <sup>3</sup>
\$4,110,000 escalated to midpoint at 10%/year	
	<u>\$13,160,000</u>

1 - From Table 1.

2 - 50/50 split between TCSD and cities.

3 - Total inflow abatement program scheduled over 10-year period.

Bond Sales - TCSD can raise capital financing through general obligation bonded indebtedness, the cheapest bond alternative available to Oregon issuers. Bonds could be sold competitively or, possibly, to the State of Oregon Pollution Control Fund. Created in 1971, the fund contains proceeds from bonds sold by the state in 1971, 1972, and 1977. Monies are to be expended on sewer, water, and solid waste pollution control projects throughout the state. DEQ administers the Pollution Control Fund. Following an election to authorize bonds, local bonds are bought by DEQ with the proceeds of the Pollution Control Fund. Currently bonds sold to the state bear a net interest cost of about 4.9 percent; however, almost all of the existing funds (about \$20 million) are already earmarked for projects underway. The state is planning to sell \$60 million for this fund in June 1980. The resulting interest rates could well be one full percent point or more above the current 4.9 percent now offered.

Annual costs of the bonds sold to DEQ would be about 25 percent lower than annual costs of competitive market bonds of the same length of maturity. Even so, the state does not usually purchase local bonds for non-grant-eligible facilities. Additionally, the 1979



fiscal year cutbacks in federal funds to the State of Oregon, and other financial factors, may occasion an even more stringent state policy towards purchasing bonds of local agencies such as TCSD. Furthermore, delays in negotiating a bond sale with the state could occasion increased project costs due to inflation which more than offset savings from a bond sale to the state. For these reasons this financing plan uses competitive market bonds, which can be sold according to a schedule determined by TCSD.

It should be noted, however, that over 95% of the non-grant-eligible costs, or an estimated \$13,660,000, are allocated to inflow abatement work which is being required by DEQ. The state should consider, therefore, purchasing TCSD bonds, despite existing policies, to help alleviate the considerable repayment burden which will be placed on the citizens of the Tri-City area.

Bond Sale Scheduling and Debt Service - Table 9 shows a means of scheduling TCSD's bond sales, and the resulting debt service. Debt service has been calculated on the basis of 20-year maturity schedules, with interest of 7% per year on the remaining balance. Debt service for the first two years of each issue is interest only, principal repayment escalating thereafter. The scheduling shows two sales for TCSD totaling \$16,690,000, and two sales on behalf of the cities totaling \$8,000,000. These amounts are derived in Tables 7 and 8. The sales on behalf of the cities are scheduled in Table 9 to meet the projected cash needs of the cities as they proceed with their share of the inflow abatement work. The bond proceeds would be made available by TCSD to the cities in the form of loans, with terms to be agreed upon when the loans are made. The cities' repayment of the loans is discussed later in the section INFLOW ABATEMENT FINANCING. Because, as time passes, both the cities and TCSD will be building cash reserves, which can be used for inflow abatement work, it is possible that less than \$8.0 million in bonds will need to be sold by TCSD on behalf of the cities.

Multiple sales are most likely because of arbitrage restrictions on the sale of municipal bonds promulgated by the U.S. Treasury Department. Basically, these regulations state that bond proceeds must be spent within three years of the sale if the issuer wishes to earn interest on unused bond proceeds in excess of interest payable to bond holders (arbitrage). These interest earnings are desirable, of course, and help reduce the amount of bonds sold. Although TCSD may need to sell bonds four times, the total amount of bonds needed could be authorized by the voters in one election.

Table 9 shows bond sales for TCSD in April of 1981, 1983, 1986, and 1989. The actual sale times may differ. The bond sales agree with the inflow abatement construction schedule outlined in Table 8. The sizing of the bond issues shown in Table 9 does not take into account interest earnings during construction on one hand or contingency expenses on the other. Current bond market conditions are quite unstable due to uncertainty among investors about the U.S. economy.

TABLE 9  
 TRI-CITY SERVICE DISTRICT  
 BOND SALE SCHEDULING & DEBT SERVICE

	Sale Dates				Totals					
	4/81	4/83	4/86	4/89						
SCHEDULING (\$000)										
Segments I-IV	\$5,000	\$6,030	--	--	\$11,030					
Land	500	--	--	--	500					
Inflow Abatement	2,580	2,580	--	--	5,160					
On behalf of cities	--	--	4,000	4,000	8,000					
	<u>\$8,080</u>	<u>\$8,610</u>	<u>\$4,000</u>	<u>\$4,000</u>	<u>\$24,690</u>					
DEBT SERVICE (\$000)										
	Fiscal Year 7/1 - 6/30									
	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91
On Behalf of TCSD										
4/81 sale	\$560 <sup>1</sup>	\$560 <sup>1</sup>	\$ 600	\$ 650	\$ 700	\$ 800	\$ 900	\$ 900	\$ 900	\$ 900
4/83 sale	--	--	560 <sup>1</sup>	560 <sup>1</sup>	600	650	700	800	900	900
	<u>\$560</u>	<u>\$560</u>	<u>\$1,160</u>	<u>\$1,210</u>	<u>\$1,300</u>	<u>\$1,450</u>	<u>\$1,600</u>	<u>\$1,700</u>	<u>\$1,800</u>	<u>\$1,800</u>
On Behalf of Cities										
4/85 sale	--	--	--	--	--	\$280 <sup>1</sup>	\$280 <sup>1</sup>	\$350	\$400	\$400
4/89 sale	--	--	--	--	--	--	--	--	280 <sup>1</sup>	280 <sup>1</sup>
						<u>\$280</u>	<u>\$280</u>	<u>\$350</u>	<u>\$680</u>	<u>\$680</u>

1 - First two years interest only; 20-year maturity schedule with 7% annual interest.

A 7% effective interest rate for the bonds, as shown in Table 9, is an educated guess at best. To itemize interest earnings and issuance costs of bond sales one or more years away will not give a clearer picture of debt service at a time when bond interest rates can fluctuate by one half of one percent in one week.

## EQUALIZATION PLAN

Certain existing facilities, including pump stations, force mains, and treatment facilities, will either be incorporated into the regional system or abandoned according to the engineering plan. These facilities represent a capital investment on the part of the cities which should be reimbursed. To equalize local costs, TCSD should compensate the cities for these facilities. The amount to be paid will be equal to the original construction cost plus 10 percent, less any grants received for construction. Table 10 shows a breakdown of costs of the cities' existing facilities.

Table 11 is the equalization plan. Each city's original cost, plus 10 percent, less grants, is payable over 20 years at 5 percent interest. Although Gladstone does not own any treatment facilities, part of its payments to Oregon City include capital payments for Oregon City's treatment plant and Gladstone is credited for the debt retirement portion of its payments. Table 12 shows the total payments by Gladstone to Oregon City since Oregon City began treating Gladstone's sewage in 1953. Table 12 also shows the portion of Oregon City's payments allocated to capital payments based on the ratio of Oregon City's bond principal payments to its total annual sewage cost. This ratio applied to Gladstone's payments yields Gladstone's ownership in treatment facilities for which it should be credited. In Table 11, these adjustments are made in the column "Special Capital Cost Allocation." The equalization plan results in installment payments by TCSD of \$22,850 to Oregon City, \$36,180 to West Linn, and \$14,960 to Gladstone, for a total of \$73,990 per year.

Under this equalization plan, the cities will continue to pay their own local debt service. Equalization payments and revenue transfers from TCSD to the cities will be sufficient to pay for local debt service and O&M/capital costs.

## FUTURE GROWTH

In order to project future revenues and expenses for TCSD and the three cities as accurately as possible, and thereby adequately determine the needed rates and charges, the Tri-City area growth projections must be well chosen. Table 13 shows the best growth information available, gathered from city officials and Portland State University. The projections indicate an overall growth rate for the region of about 4 percent. This compares with a historical growth rate between 1973



TABLE 11  
 TRI-CITY SERVICE DISTRICT  
 EQUALIZATION PLAN

	Original Cost, Less Grants	+	Special Capital Cost Allocation <sup>1</sup>	+	Plus 10%	=	Total Compensation	Installment Reimbursements <sup>2</sup>
Oregon City	\$326,986		(\$68,100)		\$25,889		\$284,775	\$22,850
West Linn	409,900		--		40,990		450,890	36,180
Gladstone	<u>101,416</u>		68,100		16,952		186,468	<u>14,960</u>
	\$838,302							\$73,990

1 - Ratio of Oregon City principal payments for treatment, times total Gladstone payments to Oregon City.

2 - Payable for 20 years plus 5% interest beginning 7/1/80.

TABLE 12  
 TRI-CITY SERVICE DISTRICT  
 ESTIMATE OF CAPITAL COST CREDIT TO GLADSTONE

	Total
<hr/>	
<u>Oregon City Expenditures</u>	
Principal payments for sewer bonds <sup>1</sup>	\$ 207,000
Total sewer expenditures <sup>1</sup>	2,064,700
Ratio of principal payments to total expenditures (capital allocation factor)	0.100
Gladstone's total payments to Oregon City <sup>2</sup>	\$ 681,200
Capital allocation factor	× 0.100
Gladstone's capital cost credit	<u>\$ 68,100</u>

- 1 - Oregon City Financial Reports, fiscal years 1968/69 through 1978/79.  
 2 - Gladstone record of payments 1968/69 through 1978/79, from letter to Bartle Wells Associates, September 4, 1974 and city financial reports.

and 1977 of about 5 percent, as discussed in the section REGIONAL AND LOCAL STATISTICAL INFORMATION. A future growth rate, which is about 20% less than past performance, is consistent with growing trends in Oregon to control and limit city expansions.

#### PROJECTED REGIONAL FINANCING

Operation and maintenance costs of regional facilities, repayment of regional debt, a revenue transfer to the cities, and payments to cities for existing facilities are the annual costs for which TCSD must provide annual revenues. Three primary resources to pay annual expenses are sewer service charges, connection charges, and property taxes.

Table 14 presents four-year historical revenue and expense data on all three cities served by TCSD. The expense information has been used to project future expenses for the TCSD and the cities in Tables 15 and 16. Expense items are therefore divided into categories for "treatment" and "collection", as TCSD will assume all treatment, leaving collection to the cities. Revenue and expenses for 1978/79 and 1979/80 have been obtained from city budgets and therefore most likely overstate expenses. Even so, expense items for each city have shown large increases over the four years.

TABLE 13  
 TRI-CITY SERVICE DISTRICT  
 FUTURE GROWTH RATES

	July 1			
	1977	1980	1985	1990
<u>Oregon City</u>				
Population	14,100	16,800 <sup>1</sup>	20,700 <sup>2</sup>	26,100 <sup>2</sup>
% Growth	--	6.0	4.3	4.8
<u>West Linn</u>				
Population	10,355 <sup>1</sup>	--	--	20,000 <sup>3</sup>
% Growth	--	--	--	5.2
<u>Gladstone (entire city)</u>				
Population	8,985 <sup>1</sup>	--	--	10,700 <sup>4</sup>
% Growth	--	--	--	1.4
<u>TCS D</u>				
Population	33,440	--	--	56,800
% Growth	--	--	--	4.2

1 - Portland State University Estimates

2 - Planning Department Estimates

3 - City estimate

4 - Bartle Wells Associates estimate based on city projection of 12,000 people by year 2000.

Table 15 presents a financing plan for TCS D through 1986/87. The table assumes that TCS D will be formed in time to assume all treatment of wastewater at existing facilities by July 1, 1980. Shortly after formation a bond election will be held to secure authorization for sale of all bonds needed for the project. The timing of the first sale of bonds will take place in 1980 or early 1981. This financial plan assumes that TCS D will generate sufficient reserves from service and connection charges to begin design in 1980 and that bonds will be sold in April 1981.

TABLE 14  
LOCAL AGENCIES  
HISTORY OF SEWERAGE REVENUES AND EXPENSES

	Actual (rounded to nearest \$100)		Budget	
	1976/77	1977/78	1978/79	1979/80
<u>City of Oregon City</u>				
Revenues:				
Service charges	\$111,500	\$116,500	\$114,000	\$169,500
Contracts	56,900	65,200	112,400	112,000
Connection charges	105,200	61,300	30,000	2,500
Other	4,200	4,800	4,000	4,000
Investments	--	5,900	--	10,000
Sewer Assessments	9,500	9,300	10,000	7,300
Total Revenues	<u>\$287,300</u>	<u>\$263,000</u>	<u>\$270,400</u>	<u>\$305,300</u>
Expenses:				
Treatment plant	\$164,100	\$165,900	\$202,200	\$251,200
Local collection systems	21,900	23,100	39,000	44,600
Debt service	26,400	27,000	26,200	26,400
Capital outlay:				
- Treatment	1,900	20,500	77,900	48,700
- Collection	4,400	17,600	20,000	9,000
Total Expenses	<u>\$218,700</u>	<u>\$254,100</u>	<u>\$365,300</u>	<u>\$379,900</u>
<u>City of West Linn</u>				
Revenues:				
Property taxes	\$ 43,300	\$ 42,400	\$ 41,500	\$ 40,600
Service charges	93,100	103,100	95,000	115,000
Connection charges	119,400	121,700	85,000	85,000
Extension fees	17,600	17,700	15,000	12,000
Development fees <sup>1</sup>	22,200	--	--	--
Other	200	1,300	--	--
Total Revenues	<u>\$295,800</u>	<u>\$286,200</u>	<u>\$236,500</u>	<u>\$252,600</u>
Expenses:				
Treatment plant				
- Personnel services	\$ 66,500	\$ 87,100	\$106,000	\$135,300
- Materials & services <sup>2</sup>	52,700	65,600	86,200	87,200
- Transfers to other funds	14,600	14,600	32,700	34,400
Local system				
- Personnel services	4,700	4,700	4,500	11,700
- Materials & services <sup>2</sup>	8,600	5,100	15,300 <sup>3</sup>	10,300 <sup>3</sup>
- Transfers to other funds	10,900	15,400	20,300	20,600
Bond service	43,300	42,400	41,500	40,600
Capital outlay				
- Treatment	3,200	11,000	27,900	42,900
- Local sewers	16,600	3,800	17,100	15,000
Total Expenses	<u>\$221,100</u>	<u>\$249,700</u>	<u>\$351,500</u>	<u>\$398,000</u>

(continued)



TABLE 14, continued  
 LOCAL AGENCIES  
 HISTORY OF SEWERAGE REVENUES AND EXPENSES

	Actual (rounded to nearest \$100)		Budget	
	1976/77	1977/78	1978/79	1979/80
<u>City of Gladstone</u>				
Revenues (entire city):				
Service charges	\$101,800	\$105,900	\$174,000	\$195,000
Connection charges	20,000	51,500	36,000	31,000
Other	1,300	2,500	2,000	1,000
Total Revenues	<u>\$123,100</u>	<u>\$159,900</u>	<u>\$212,000</u>	<u>\$227,000</u>
Expenses (Oregon City portion only): <sup>4</sup>				
Contract for treatment and disposal with Oregon City	\$50,900	\$ 64,800	\$110,000	\$110,000
Local collection system				
- Personnel services	18,600	24,300	34,300	40,700 <sup>5</sup>
- Materials & services <sup>2</sup>	6,500	10,600	8,400	10,300
Capital				
- Treatment	--	--	--	--
- Collection	2,700	11,600	22,600 <sup>6</sup>	16,800 <sup>6</sup>
Total Expenses	<u>\$78,700</u>	<u>\$111,300</u>	<u>\$175,300</u>	<u>\$177,800</u>

- 1 - Beginning in 1977/78, development fees have been paid into the Systems Development Fund. Fees are paid by customer when permit is issued.
- 2 - Excludes amounts budgeted for Tri-City Sewage Study.
- 3 - Does not include Systems Development Fund costs, which began in 1978-79, spent largely for inflow abatement.
- 4 - Expenses factored on the basis of contract payments to Oregon City, Oak Lodge, and Clackamas S.D.
- 5 - Excludes new staff position for utility worker III resulting from growth in areas other than Oregon City served area.
- 6 - Excludes storm water separation.

TABLE 15  
TRI-CITY SERVICE DISTRICT  
REGIONAL FINANCING PLAN

	First year of TCSD 1980/81	1981/82	1982/83	1983/84	First year of new facilities 1984/85	1985/86	1986/87
Number of EDU's	13,500	13,830	14,490	15,150	15,810	16,470	17,130
New EDU's/year:							
Residential	300	600	600	600	600	600	600
Commercial <sup>2</sup>	30	60	60	60	60	60	60
Growth rate	2.4%	4.8%	4.6%	4.4%	4.2%	4.0%	3.9%
Regional service charge/year	\$72	\$72	\$84	\$84	\$96	\$96	\$108
Regional connection charge	\$1,000	\$1,100	\$1,200	\$1,300	\$1,400	\$1,500	\$1,600
Tax rate/\$1000	--	--	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50
True cash value (\$000) <sup>3</sup>	\$640,000	\$715,000	\$800,000	\$900,000	\$1,005,000	\$1,125,000	\$1,260,000
Beginning balance	-0-	\$210	\$210	\$790	\$850	\$900	\$910
<u>Revenues (\$000)</u>							
Service charges	\$ 970	\$1,000	\$1,220	\$1,270	\$1,520	\$1,580	\$1,850
Connection charges	330	730	790	860	920	990	1,060
Property taxes	--	--	400	450	500	560	630
Total Revenues	<u>\$1,300</u>	<u>\$1,730</u>	<u>\$2,410</u>	<u>\$2,580</u>	<u>\$2,940</u>	<u>\$3,130</u>	<u>\$3,540</u>
<u>Expenses (\$000)</u>							
Regional O&M/Capital							
- Old <sup>4</sup>	\$ 700	\$ 770	\$ 850	\$ 930	--	--	--
- New <sup>5</sup>	--	--	--	--	\$1,230	\$1,350	\$1,490
Regional revenue transfer to cities <sup>6</sup>	320	330	350	360	380	400	410
Regional debt service <sup>7</sup>							
- On behalf of TCSD	--	560	560	1,160	1,210	1,300	1,450
- On behalf of cities	--	--	--	--	--	--	280
Equalization payments <sup>8</sup>	70	70	70	70	70	70	70
Total Expenses	<u>\$1,090</u>	<u>\$1,730</u>	<u>\$1,830</u>	<u>\$2,520</u>	<u>\$2,890</u>	<u>\$3,120</u>	<u>\$3,700</u>
Ending Balance (available for loans to cities)	\$ 210	\$ 210	\$ 790	\$ 850	\$ 900	\$ 910	\$ 750

1 - Figures rounded to nearest \$10,000.

2 - Oregon City only. Commercial growth in West Linn and Gladstone included in residential projections.

3 - Escalated at 12% per year. Gladstone AV within TCSD estimated at 65%.

4 - Based on treatment expenses shown in Table 14. Expenses escalated at 10% per year.

5 - Based on cost estimates in Table IX-13, Sewerage Facilities Plan, December 1978. Costs escalated at 10% per year.

6 - Allocation of \$24 per EDU.

7 - From Table 9.

8 - From Table 11.

All figures in Table 15 are rounded to the nearest \$10,000. The financial plan incorporates the following key items.

Growth - The number of EDU's as of July 1, 1980 is estimated at 13,500 (13,160 from Table 2 escalated forward six months at about 5 percent per year). Table 15 shows an overall growth rate of 4.1% over the six-year period. However, in 1980/81, the first year of TCSD, growth is only shown at 2.4% due to the expected difficulties in drafting plans for Phase I implementation that are acceptable to DEQ--plans which will result in the lifting of the moratorium. In 1981/82 and 1982/83 growth is shown in excess of 4.5% as builders satisfy demand built up during the moratorium. Thereafter growth slows to 4.0% and below.

All growth figures are expressed in terms of equivalent dwelling units (EDU's). The line item for "commercial" growth represents the contribution commercial/industrial customers will make in Oregon City. The 60 EDU's/year shown are discussed in a previous section, REGIONAL AND LOCAL STATISTICAL INFORMATION.

Regional Service Charge - Monthly or bimonthly sewer service charges are recommended as the primary source of annual revenues. Table 15 shows a regional charge of \$6 per month in 1980/81, escalating to \$9 per month in 1986/87. Service charge revenues have been sized to at least match expected annual O&M. This will be a requirement of receiving federal grants.

Service charges shown are the yearly rate per EDU. The EDU concept requires each type of sewer user to be classified as a multiple of an average single-family dwelling unit. The concept calls for standardization on the part of the three cities as to how commercial and industrial customers should be classified on an EDU basis.

Regional Connection Charge - Connection charges are one-time charges to property owners at the time they wish to connect a new unit to the sewer system. The financial plan recommends a connection charge high enough to ensure that new users pay an equitable share of project cost. In the regional financing plan shown, the charge begins at \$1000 in 1980/81 and escalates at \$100 per year, allowing for inflation.

Property Taxes - If voters authorize general obligation bonds, ad valorem property taxes could be used to pay the full amount of debt service. This financial plan recommends an ad valorem tax to supplement other revenues to pay bond service. A tax of \$0.50 per \$1,000 of assessed valuation is shown beginning in 1982/83. The tax may need to be increased in future years depending on (1) the growth which actually occurs in TCSD, (2) the manner in which the cities' share of inflow abatement work is financed, and (3) other economic factors. The table does not schedule a tax for 1980/81 and 1981/82. This hiatus will assist the district in winning its bond election.

Regional Expenses - In this plan TCSD assumes operation of existing treatment facilities as of July 1, 1980, paying associated O&M and administration costs until the new regional treatment plant is completed. Table 15 shows operation of the old facilities ending 1983/84, and operation of the new regional facilities beginning 1984/85. No overlap of use of the old and new treatment plants is assumed.

Debt service and bond sale scheduling are taken from Table 9. Finally, equalization payments, as detailed in Tables 10-12, are shown being paid in installments over 20 years at 5 percent interest.

Local Expenses - Projected expenses for TCSD include a regional revenue transfer to the cities beginning in 1980/81 for local O&M and capital expenses. This transfer will provide capital to the cities to operate and maintain their collection systems. It will also allow the cities to build reserves to begin work on their share of inflow abatement on a pay-as-you-go basis, as well as pay for new interceptors and other major capital items.

The revenue transfer in Table 15 is based on an allocation factor of \$24 per EDU per year. As time passes this amount can be changed when mutually agreed upon by the cities and TCSD. In their operating agreements, TCSD and the cities should agree to conduct an impartial yearly audit and budget review to establish a fair allocation factor.

The allocation factor is based on EDU, not on connection charge revenue. Connection charge revenues will be used by TCSD to help pay debt service used to finance both Phase I facilities and inflow abatement. Therefore the cities will be receiving direct benefit from the connection charges they contribute. Furthermore, to base the allocation factor on connection charge revenues would unduly penalize Gladstone whose TCSD service area is largely built-out.

#### PROJECTED LOCAL FINANCING

Table 16 presents projected revenues and expenses for operation of the local collection systems.

Growth - Table 16 uses the same growth assumptions as Table 15. Regional growth of 600 residential and 60 commercial EDU per year is distributed according to percentages shown in Table 2 and the recognition that Gladstone is largely built-out.

Regional Revenue Transfer - The cities will receive monies out of TCSD revenues. The transfer will be based on a set number of dollars per year per EDU in each city. This allocation factor will be agreed upon by TCSD and the cities based on a review of the cities'

TABLE 16  
 TRI-CITY SERVICE DISTRICT  
 LOCAL COLLECTION SERVICES, PROJECTED REVENUE AND EXPENSES

	Oregon City				West Linn				Gladstone <sup>2</sup>			
	1980/81	1982/83	1984/85	1986/87	1980/81	1982/83	1984/85	1986/87	1980/81	1982/83	1984/85	1986/87
Estimated number of EDU's <sup>3</sup>	6,600	7,170	7,930	8,690	4,390	4,765	5,265	5,765	2,510	2,555	2,615	2,675
New EDU's/year <sup>3</sup>	190	380	380	380	125	250	250	250	15	30	30	30
<u>Revenues (\$000)</u>												
Regional revenue transfer <sup>4</sup>	\$160	\$170	\$190	\$210	\$105	\$115	\$125	\$140	\$ 60	\$ 60	\$ 65	\$ 65
Equalization revenue	25	25	25	25	35	35	35	35	15	15	15	15
Total Revenues	\$185	\$195	\$215	\$235	\$140	\$150	\$160	\$175	\$ 75	\$ 75	\$ 80	\$ 80
<u>Expenses (\$000)<sup>5</sup></u>												
O&M <sup>6</sup>	\$50	\$55	\$60	\$65	\$ 45	\$ 50	\$ 55	\$ 65	\$50	\$55	\$60	\$70
Capital	20	20	25	25	15	15	20	20	10	10	10	15
Debt service	25	--	--	--	45	40	45	40	--	--	--	--
Total Expenses	\$95	\$75	\$85	\$90	\$105	\$105	\$120	\$125	\$60	\$65	\$70	\$85
Yearly surplus (deficit) (\$000)	\$90	\$120	\$130	\$145	\$35	\$45	\$40	\$50	\$15	\$10	\$10	(\$5)

1 - Figures rounded to nearest \$5,000.

2 - Reflects only that portion of Gladstone served by Oregon City.

3 - Growth based on projections in Table 15 and distribution in Table 2.

4 - Based on \$24 per EDU.

5 - Based on local collection expenses shown in Table 14.

6 - Expenses escalated at 10%/year.

audits and budgets and the status of the inflow abatement program. The allocation factor is based on EDU for reasons discussed above, and in Table 16 is \$24/year/EDU.

Expenses - Expenses in Table 16 are based on the cities' experience as shown in Table 14. O&M expenses are escalated at 10% per year.

#### INFLOW ABATEMENT FINANCING

As discussed earlier, this financial plan has TCSD and the cities splitting the costs of inflow abatement 50/50. Capital for half of the inflow abatement program will be incorporated in TCSD's first two bond sales, and construction will begin at the same time as Phase I construction. Connection charge revenues will pay, in part, for this debt service. New residents will therefore be contributing to both inflow abatement and expansion of the facilities when they first buy their homes. They will also contribute thereafter, along with all other users, through the monthly service charge and the ad valorem tax.

Tables 15 and 16 show end-of-year surpluses accruing to both TCSD and the cities. The cities will use their surpluses to begin work on their 50% share of inflow abatement plus finance interceptors and other major capital items. Work on inflow abatement will proceed as growth occurs, revenues are available, and treatment plant capacity is needed for new development.

TCSD cash reserves, along with bond proceeds sold on behalf of the cities (as discussed in SOURCES OF CAPITAL FUNDS and shown in Table 9), could be made available to the cities, if needed, for the cities 50% share of inflow abatement work. TCSD would loan monies to the cities, with terms to be agreed upon when the loans are made. Repayment of these loans could be made by the cities through adjustments to the regional revenue transfer allocation factor. The cities could also adopt service or connection surcharges. The actual method of repayment will be determined once the size and terms of the loans are known.

#### REGIONAL BILLING

The regional service and connection charges will be collected by the cities through their existing billing systems.

#### FINANCING SAFEGUARDS

- o Interest earnings on district and local revenues are not shown.
- o O&M projections are escalated at 10% per year over a seven-year period.
- o Growth for the region is escalated at about 4% per year over a seven-year period.
- o Bond amounts are not adjusted by potential interest earnings on construction funds.