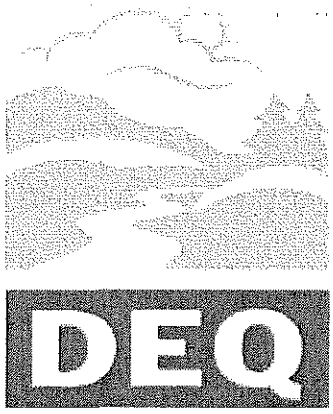
4/16/1982

OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS



State of Oregon
Department of Environmental Quality

OREGON ENVIRONMENTAL QUALITY COMMISSION MEETING

April 16, 1982

14th Floor Conference Room
Department of Environmental Quality
522 S. W. Fifth Avenue
Portland, Oregon

AGENDA

9:00 am CONSENT ITEMS

These routine items are usually acted on without public discussion. If any item is of special interest to the Commission or sufficient need for public comment is indicated, the Chairman may hold any item over for discussion.

APPROVED A. Minutes of the March 5, 1982, EQC meeting.

APPROVED B. Monthly Activity Report for February 1982.

APPROVED C. Tax Credits.

9:05 am D. PUBLIC FORUM

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

HEARING AUTHORIZATIONS

Public testimony will be accepted on the advisability of scheduling a public hearing but not on the substance of the rule.

APPROVED E. Request for authorization to hold a public hearing on the Construction Grants Priority System and List for FY 83.

APPROVED F. Request for authorization to hold a public hearing on proposed housekeeping amendments to the Motor Vehicle Emission Control Inspection Test Criteria, Methods and Standards, OAR 340-24-300 through 24-350.

G. Request for authorization to hold a public hearing on proposed revisions to the State Air Quality Implementation Plan for:

APPROVED (1) The Portland-Vancouver Interstate AQMA (Oregon Portion) regarding ozone control strategies;

APPROVED (2) The Portland-Vancouver Interstate AQMA (Oregon Portion) regarding carbon monoxide control strategies; and

APPROVED (3) Equipment burning salt-laden woodwaste from logs stored in salt water, OAR 340-21-020(2).

ACTION AND INFORMATIONAL ITEMS

Public testimony will be accepted on the following except items for which a public hearing has previous been held. Testimony will not be taken on items marked with an asterisk (*). However, the Commission may choose to question interested parties present at the meeting.

APPROVED H. EQC review of primary aluminum plant regulations pursuant to OAR 340-25-265(5) and request for authorization to hold a public hearing on proposed revisions to OAR 340-25-265.

APPROVED I. Mazama Plywood Company, Sutherlin, request for extension of a variance from OAR 340-25-315(1)(b), Veneer Dryer Emission Limits.

~~J. Weyerhauser Company, North Bend, request for extension of a schedule to comply with OAR 340-25-315(2), Particulate Matter from Plywood Manufacturing.~~ WITHDRAWN

APPROVED K. Request for variance from 340-25-315(1)(b), Veneer Dryer Emission Limits, for Champion International Corporation, Lebanon Plywood Division (steam-heated dryer 1 through 6).

APPROVED L. Proposed adoption of amendments to Hazardous Waste Management Rule, OAR 340-63-125.

APPROVED eff. 7/1/84 M. Public hearing on question of extending date on prohibition of cesspools to serve new construction, OAR 340-71-335.

APPROVED w/amendments N. Informational report: DEQ activities for meeting federal requirements to protect visibility in Class 1 areas.

APPROVED O. City of Cottage Grove sewerage system improvement program.

SET OVER to 6/11/82 P. Proposed adoption of Gravel-less Disposal Trench Alternative On-site Systems Rules, OAR 340-71-355 and OAR 340-73-060(2)(f).

APPROVED Q. Request by City of Portland to amend revenue bond purchase agreement (Item H, December 4, 1981, EQC agenda), including review and recommendations by bond counsel on the terms of agreement used by the Department.

APPROVED R. Request for concurrence: Purchase of Yamhill County Revenue Bonds for construction of sanitary landfill.

WORK SESSION

The Commission reserves this time, if needed, for further consideration of any item on the agenda.

Because of the uncertain length of time needed, the Commission may deal with any item at any time in the meeting except those set for a specific time. Anyone wishing to be heard on an item not having a set time should arrive at 9:00 am to avoid missing any item of interest.

The Commission will breakfast (7:30 am) at the *Portland Motor Hotel*, 1414 S. W. Sixth Avenue, Portland; and will lunch at DEQ Headquarters, 522 S. W. Fifth Avenue, Portland.

OREGON ENVIRONMENTAL QUALITY COMMISSION

April 16, 1982

BREAKFAST AGENDA

1.	Medford Clean Air Plans - status report	Kowalczyk
2.	Pollution Control Bond Fund	O'Donnell
3.	Legislative process/concepts	Biles
4.	Rock Mesa	Young

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: Ernie Schmidt
Jack Weathersbee
Fred Bolton
Hal Sawyer
Mike Downs

DATE: April 6, 1982

FROM: Stan Biles SB

SUBJECT: 1982-83 Legislative Program

The 1983 regular legislative session is eight months away. Our agency's legislative concepts are due in the Governor's office May 1. Compared with previous years, we are roughly three months behind our normal legislative preparation schedule. The January-February special session has delayed initiation of legislative planning by the Governor's office as well as state agencies. This year's preparation process will be similar to previous efforts, although the introduction of new faces and the impacts of past and possibly future 1982 special legislative sessions will prompt some change. Our program will seek to improve our ability to affect improvements in the state's environment, this will be our primary objective. On some issues our strategy will be aggressive, on others defensive, and on some neutral. We will cultivate and utilize external support when it is advantageous to do so and we will seek to tap the talents of all employees who can assist our efforts. To be successful, the contributions of many through a rational process and organization will be necessary. The following comments describe the process and organization and outline appropriate roles for the key actors.

1982 Legislative Planning Schedule

April 14	Legislative concepts submitted to Stan Biles
April 16	EQC reviews concepts (tentative)
April 14-23	Director reviews concepts
May 1	Concepts submitted to Governor's office
May	Governor's office reviews concepts with Director
May-August	Agency prepares legislative language
September 1	Bill drafts submitted to Governor for prioritization
December 15	Deadline for pre-session filing

This schedule is somewhat different from previous schedules in two important respects. First, due to the January-February special session, the scheduling is three months shorter. Secondly, in recognition of the condensed time frame, agencies have until fall to develop detailed legislative proposals. Previously, the detail work was completed earlier. Since time is limited, a few suggestions to maximize its use are offered. During the early concept-formation period and more importantly during the

summer months, input should be solicited from as many individuals and organizations, as possible. Those that are given an opportunity to contribute early are most likely to be willing supporters later when we will need all the help we can get. Examples of potential supporters who could contribute to concept formation and research include:

- Current employees
- Retired employees
- Special interest organizations
- Civic groups
- Professional associations
- Staff from other public agencies (Energy, Fish and Wildlife, counties, cities, agencies from other states, etc.)
- Etc.

Not only should ideas be solicited from these groups, but their general impressions and support for our current and proposed activities should be encouraged. If you have a personal connection to an organization, make the contact. If not, let me know and I will initiate the contact.

Secondly, as you develop and research concepts, it is critical to clearly establish the need for such proposals. Specific "real life" examples combined with statistical analysis whenever possible are good ways to convince a third party of the need for a proposal. The summer and fall months will be the best opportunity to complete the research and begin

organizing internal and external support. Once the session begins it is too late to begin to research the need and organize support for our proposals.

Lastly, once the Governor has reviewed and prioritized our proposals, we will initiate formal drafting of the legislation. We will have roughly two and a half months to complete drafting and introduce legislation prior to the December 15 pre-session filing deadline. In order to facilitate drafting and to ensure that the final document genuinely reflects our proposal, some pre-drafting work is encouraged on the part of our staff. We should prepare draft legislative language to be used as a base for our eventual drafters--probably legislative counsel. By doing some preparatory work, the final drafting should proceed more quickly and better reflect our interests.

In summary, to accomplish our objectives, several interdependent factors are important:

- An efficient organization
- A well-defined and broadly understood process
- Contributions from varied sources
- Convincing identification of need
- Preparatory drafting

Successful achievement of these five component parts is dependent upon a diverse group of individuals effectively performing pre-defined roles. The next section identifies the various actors and outlines the responsibilities characteristic of each.

Actors/Roles

Bill Young — Primary agency spokesperson before the legislature; direct involvement in setting planning direction; prioritizing proposals; primary linkage to the Governor's office.

Stan Biles — Secondary agency spokesperson before the legislature, overall director of legislative program, will coordinate lobbying, research, and testimony activities, will serve as linkage between the Director's office and other components of the program.

Legislative Coordinating Committee - Chaired by Stan Biles; will review legislative proposals; assisting in research; facilitate distribution of current information; will serve as a linkage between Stan Biles and division staff; will be formed during the next sixty days.

Pam Contessa	Will manage a central filing system of bill drafts; hearing notices, etc.; will coordinate logistical preparation for testimony and will conduct research on legislative matters. Pam's desk will be the major communication channel between our staff at the legislature and headquarters and the regions.
Division Administrators	Will function as the linkage between our legislative operations and division interests, activities, and staff; will coordinate research and legislative drafting efforts at the divisional level; will make appropriate resources available to assist legislative activities.
Technical Staff	Will contribute initial legislative concepts, assist in researching selected issues, and provide ongoing assistance as needed in a consultative capacity to the Department and the Legislature.

Conclusion

The process and structure outlined above should facilitate an effective legislative program. Federal and state fiscal conditions require the agency to be portrayed in the best manner during the session. Undoubtedly,

the possibility of greater state agency cut-backs will prompt a closer review of budgets, as well as the amount of public support for each state agency. These and other factors will determine which state agencies receive what resources, and authority for the next biennium. Our ability to positively affect legislative decision-making will be determined by our collective contributions, rather than the efforts of a single person or group of individuals. Sound legislative concepts, complete research and background preparation, professional legislative drafting, effective lobbying, efficient internal communication, timely public support, and luck are the major factors which will determine the relative success/failure of our program. The clock has now started ticking and your attention is directed to the first two steps in the schedule. As we proceed through the process and concentrate upon the subsequent steps, questions and suggestions are encouraged.

SB:h

MH343

cc: Bill Young

Public Affairs staff

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: Stan Biles, Assistant to the Director via Bill Young SB

Subject: Legislative Concepts, April 16, 1982, EQC Breakfast Meeting

Recently the Governor's Office requested state agencies to initiate legislative planning programs in anticipation of the 1983 Regular Legislative Session. As a first step, agencies were asked to submit general descriptions of their legislative interests to the Governor's Office by May 1, 1982.

Last Month, staff began submitting various ideas for inclusion within the Department's initial legislative inventory. A brief summarization of those suggestions is outlined below. These "legislative concepts" are intended to identify potential interest areas rather than definitive proposals. During the summer these and other concepts will be developed in greater specificity. Eventually, a detailed legislative program will be forwarded to the Commission for formal consideration. At this time, your attention is directed toward the staff's initial legislative thoughts.

SOLID WASTE

- With the assistance of a policy and programming committee, staff is reviewing alternative methods to diversify funding of the solid waste and hazardous waste programs. To date, attention has focused primarily upon the implementation of various fees. Legislative authorization would be necessary to implement such an approach.

- Authorization to regulate sewage sludges applied at agronomic rates is under consideration. This concept is similar to SB 145 introduced during the 1981 Regular Session.

- Staff is also discussing authorization to require financial assurance for proper landfill closure, again similar to legislation introduced in 1981.

TAX CREDITS

- A variety of alternative revisions to the tax credit program are under consideration. The overall intent of the discussions to date has been to simplify the process for the applicant as well as the agency and to tighten the program where necessary. The Department intends to consult with all affected interests to develop a unified reform proposal.

WATER QUALITY

- Staff is reviewing the level of bonding for septic tank installers to determine if current conditions justify revisions.

NOISE PROGRAM

- Staff, with the assistance of an advisory committee is reviewing the current state of our noise programs and considering optional funding mechanisms. The implementation of fees and a noise pollution planning process applicable to construction or modification of noise emission sources have been discussed.

AIR QUALITY

- The growth of pollution generated by residential wood heating has prompted consideration of several questions:

  -Would the expanded use of tax credits be beneficial in this area?
  -Should additional funding be sought for research into cleaner burning stoves?
  -What type of legislation would prompt voluntary enhancement?
  -Should alternative regulatory mechanisms be evaluated?

- Staff is contemplating the reintroduction of legislation to implement a motor vehicles inspection and maintenance program in the Medford area.

- Three revisions to the Field Burning statues have been discussed:

  -Amending the burning fee from "not less than $2.50 per acre" to "not more than $2.50 per acre."
  -Requiring "cereal grass crops" to be registered, and,
  -Removing requirements that fees be collected prior to the issuance of a permit.

PERMITS

- Staff is reviewing the time limits of all permits to determine whether greater Departmental discretion is warranted or whether statutorily established schedules are most appropriate.

Next week the Department is scheduled to discuss these preliminary thoughts with the Governor's Office. The Commission's reaction to these suggestions would be timely and is encouraged.

Stan Biles:k
229-5327
April 15, 1982
MK823 (2)

EQC
Young

April 10, 1982

Joe Richards, Chairman
Environmental Quality Commission
522 S. W. Fifth Avenue
Portland, Oregon 97207

Dear Chairman Richards:

In 1971 and 1977, the question of whether pumice mining should occur in the Rock Mesa portion of the Three Sisters Wilderness Area was before the Commission.

In 1971, the Commission declared that, " . . . the policy and purpose of the Department of Environmental Quality is to maintain the environment of wilderness areas essentially in a pristine state and as free from air, water, and noise pollution as is practically possible and to permit its alteration only in a matter compatible with recreational use and the enjoyment of the scenic beauty and splendor of these lands by the citizens of Oregon and of the United States.

In 1977, the Commission was asked to join in the Rock Mesa appeal. It declined because the position of the Commission was determined to be what was later articulated in a letter to O.S.P.R.I.G. by the Director that, " . . . the integrity of the wilderness rule can better be maintained in a state administrative or court proceeding in which this agency has full charge of the case. "

In both instances, the Commission's position was consistent with the position universally taken in Central Oregon, that Rock Mesa should be left in its natural state.

During the early 1970's, individuals and groups with economic and environmental interests banded together to protect this vital natural resource. The very viability of the tourism and recreation sector of the Central Oregon economy was at stake and strong lobbying on the part of the Bend Chamber of Commerce was crucial in bringing attention to the issue.

Today, the facts in the case remain the same. The same coalition exists and holds consistently to the position that Rock Mesa remain unmined.

The City of Bend joins with us, a loose coalition of very concerned Central Oregon citizens, in requesting that the Environmental Quality Commission again become familiar with the issue. The issue could again be before the Commission next fiscal year. The interests of the people of Oregon would best be served by a Commission with advanced information on a concern of such far-reaching economic and environmental consequences.

Thank you for your ongoing diligent work and service on behalf of the citizens of Oregon. Please let us know when we may be of any assistance.

Sincerely,

Bill Ellis, chairperson
61011 Chuckanut Drive
Bend , Oregon 97702

Patricia Porter, vice-chairperson
Julie Bourquin
Roger Cantwell
Bruce Devlin
Don Gallagher
Dr. Jim Mahoney
Norm Schultz
George Spencer
Caryn Talbot
Rep. Tom Throop

THESE MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EQC

MINUTES OF THE ONE HUNDRED THIRTY-NINTH MEETING

OF THE

OREGON ENVIRONMENTAL QUALITY COMMISSION

April 16, 1982

On Friday, April 16, 1982, the one hundred thirty-ninth meeting of the Oregon Environmental Quality Commission convened at the Department of Environmental Quality, Portland, Oregon. Present were Commission members Mr. Joe B. Richards, Chairman; Mr. Fred J. Burgess; Mr. Ronald M. Somers; Mr. Wallace B. Brill; and Mrs. Mary V. Bishop. Present on behalf of the Department were its Director, William H. Young, and several members of the Department staff.

The staff reports presented at this meeting, which contain the Director's recommendations mentioned in these minutes, are on file in the Office of the Director of the Department of Environmental Quality, 522 S.W. Fifth Avenue, Portland, Oregon. Written information submitted at this meeting is hereby made a part of this record and is on file at the above address.

BREAKFAST MEETING

The breakfast meeting convened at 7:30 a.m. at the Portland Motor Hotel in Portland. Commissioners Richards, Somers, Brill, Burgess and Bishop were present, as were several members of the Department staff.

The following items were discussed:

1. Medford Clean Air Plan Status Report: John Kowalczyk, Air Quality Division, distributed and summarized written reports on CO and TSP. He told the Commission that these items should be ready for hearings in September, 1982.

2. Pollution Control Bond Fund: Fergus O'Donnell, Business Manager, reviewed the status of the bond fund, including the balance remaining for loans and projected demand. He said it was possible that we would go to market with a sale in the reasonably near future and said that we are exploring commitments from local governments prior to that time.

3. Legislative process/concepts: Stan Biles, Assistant to the Director, provided the Commission two written reports, one on a process for developing proposed legislation and the other summarizing legislative concepts that have been developed so far. He summarized the reports and invited the Commission to submit its concepts and concerns to staff. Chairman Richards proposed meeting with staff in June to discuss legislative concepts and suggested doing that before or after the June 11 regular EQC meeting.

4. Rock Mesa: The Director reviewed a discussion he had with a group which is opposed to mining in the Rock Mesa area and submitted a letter to the Commission from that group. The Commission asked staff to report further on that issue at the next meeting.

FORMAL MEETING

Commissioners Richards, Somers, Burgess, Bishop, and Brill were present for the formal meeting.

AGENDA ITEM A - MINUTES OF THE MARCH 5, 1982 MEETING.

It was MOVED by Commissioner Somers, seconded by Commissioner Bishop, and carried unanimously that the Minutes be approved as submitted.

AGENDA ITEM B - MONTHLY ACTIVITY REPORT FOR FEBRUARY, 1982.

It was MOVED by Commissioner Somers, seconded by Commissioner Bishop, and passed unanimously that the Director's recommendations be approved.

AGENDA ITEM C - TAX CREDITS.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess, and carried unanimously that the Director's Recommendation be approved.

AGENDA ITEM D - PUBLIC FORUM.

No one chose to appear.

Chairman Richards read a letter submitted to the Commission from a concerned group regarding mining in the Rock Mesa area. He requested staff to return to the next regular EQC meeting on June 11 with a further report on this matter.

AGENDA ITEM E - REQUEST FOR AUTHORIZATION TO HOLD A PUBLIC HEARING ON THE CONSTRUCTION GRANTS PRIORITY MANAGEMENT SYSTEM AND LIST FOR FY 83

This item is a request for authorization to hold a public hearing on the sewerage works construction grants priority list and minor revisions to the management system for Federal Fiscal Year 1983. The federal program underwent significant changes when the Construction Grant Amendments to the Clean Water Act were passed in December 1981. As we begin this year's process to set the FY 83 priority list for grants, we are revising our existing rules to conform with changed aspects of the federal program; however, we also begin with the knowledge that new federal regulations expected before mid-summer may alter the final product before we return to the Commission for final action.

Director's Recommendation

Based on the Summation, the director recommends the following:

1. The Commission authorize a hearing before a hearings officer on the FY 83 priority management system and priority list, to be held on June 3, 1982. All testimony entered into the record by the close of the hearing will be considered by the Commission.

2. The Department inform and update the Commission, as necessary, on new developments regarding this process.

AGENDA ITEM F - REQUEST FOR AUTHORIZATION TO HOLD A PUBLIC HEARING ON PROPOSED HOUSEKEEPING AMENDMENTS TO THE MOTOR VEHICLE EMISSION CONTROL INSPECTION TEST CRITERIA, METHODS AND STANDARDS OAR 340-24-300 THROUGH 24-350

The Commission is being asked to authorize a public hearing to consider proposed housekeeping amendments to the vehicle inspection program rules. Highlights of these proposed changes include deletion of the definition for non-complying import cars, a change in the test procedure, and a change in the policy on engine changes. An additional highlight of the proposed public hearing will be the opportunity for public comment on all aspects of the rules, not just the proposed amendments.

Director's Recommendation

Based upon the Summation, it is recommended that the public hearing be authorized.

AGENDA ITEM G(1), (2), and (3) -

ITEM G(1): REQUEST FOR AUTHORIZATION TO HOLD A PUBLIC HEARING ON PROPOSED REVISIONS TO THE STATE AIR QUALITY IMPLEMENTATION PLAN FOR THE PORTLAND-VANCOUVER INTERSTATE AQMA (OREGON PORTION) REGARDING OZONE CONTROL STRATEGIES.

Agenda Item G(1) is a hearing authorization report for proposed revisions to the State Implementation Plan regarding a detailed ozone control strategy for the Portland Metropolitan area. Attainment is predicted by the statutory federal deadline of December 31, 1987. The plan basically relies on existing controls such as the Oregon biennial auto inspection maintenance program and the previously adopted VOC rules which apply to certain industrial and commercial operations. The proposed amendment to the plan, which establishes a growth cushion policy to replace the offset program, has not been agreed to by the state of Washington, but we are hopeful Washington will develop a compatible SIP which EPA can approve.

Director's Recommendation

Based upon the Summation, the Director recommends that the EQC authorize a public hearing to consider public testimony on the proposed 1982 Ozone SIP Revision for the Portland-Vancouver Interstate AQMA.

ITEM G(2): REQUEST FOR AUTHORIZATION TO HOLD A PUBLIC HEARING ON PROPOSED REVISIONS TO THE STATE AIR QUALITY IMPLEMENTATION PLAN FOR THE PORTLAND-VANCOUVER INTERSTATE AQMA (OREGON PORTION) REGARDING CARBON MONOXIDE CONTROL STRATEGIES.

Agenda Item G(2) is a hearing authorization report for proposed revisions to the State Implementation Plan regarding a detailed carbon monoxide control strategy for the Portland metropolitan area. Attainment is predicted by 1985 with existing controls such as the biennial auto inspection maintenance program and the City of Portland's parking management program with a ceiling on downtown parking spaces. The plan has been endorsed by the Portland City Council as well as the METRO Council.

Director's Recommendation

Based on the Summation, the Director recommends that the EQC authorize a public hearing to consider public testimony on the proposed Carbon Monoxide SIP revision for the Portland-Vancouver Interstate AQMA (Oregon portion).

ITEM G(3): REQUEST FOR AUTHORIZATION TO CONDUCT A PUBLIC HEARING ON REVISING THE STATE IMPLEMENTATION PLAN REGARDING RULES FOR EQUIPMENT BURNING SALT LADEN WOOD WASTE FROM LOGS STORED IN SALT WATER, OAR 340-21-020(2).

Weyerhaeuser has petitioned for permanent exemption of salt from rules for their stack plume on Coos Bay. Department review of the situation indicates that the salt impacts from the boiler are small in comparison to natural sea salt impacts. While the area caters to tourists, the industrial area around the mill is recognized as heavy-industrial zoned, and neither the company's file nor recent hearings have received any complaints about the heavy white opacity of Weyerhaeuser's stack. The Department has visited out-of-state mills where the salt is being captured, and Weyerhaeuser has estimated a capture cost for this stack; the consensus is that the cost and corrosion involved may not be worth the aesthetic and minimal environmental benefit. Therefore, the Department recognized a need to have the Commission consider converting rule 340-21-020(2), expiration date January 1, 1984, to a permanent exemption.

Director's Recommendation

Based on the Summation, it is recommended that the Commission authorize a public hearing to revise OAR 340-21-020(2) concerning boilers out of compliance because of salt and to consider the proposed amended rules for adoption as a revision to the State Implementation Plan.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess, and passed unanimously that the Director's Recommendations in Items E, F, and G(1), (2), and (3) be approved.

AGENDA ITEM H - EQC REVIEW OF PRIMARY ALUMINUM PLANT REGULATIONS PURSUANT TO OAR 340-25-265(5) AND REQUEST FOR AUTHORIZATION TO HOLD A PUBLIC HEARING ON PROPOSED REVISIONS TO OAR 340-25-255 THROUGH 340-25-285.

Oregon Administrative Rule 340-25-265(5) requires that the Commission review the feasibility of applying new aluminum plant emission limits OAR 340-25-265(1) to existing aluminum plants. A hearing was held on November 9, 1982 to obtain an informational base for the Commission's review.

Martin Marietta, Reynolds Metals Co., and others testified that requiring existing plants to comply with new plant limits is neither practicable or necessary. In addition, Reynolds formally indicated a need for a revision of particulate emission limits as applied to their plant. Ambient air impacts of present emission rates at Reynolds were analyzed. The results indicate that ambient standards would not be violated.

Based on the hearing record, the Department is recommending that the Commission find that applying "new plant" limits to existing plants is not feasible and authorize the Department to hold a public hearing on proposed changes to the Primary Aluminum Plant regulations as set forth in Attachment II of the staff report. The proposed changes would delete requirements for existing plants to comply with new plant limits and establish particulate emission limits specific to vertical stud Soderberg and prebake facilities.

Director's Recommendation

Based upon the Summation, it is recommended that the Commission find that applying OAR 340-25-265(4)(b) is not feasible and authorize the Department to hold a public hearing on the proposed rule changes set forth herein as Attachment II.

Bill Sheridan, Wasco County Fruit and Produce League, submitted copies of a letter sent on December 21, 1981, to the EQC hearing officer. He asked that it be made a part of the record before the time of the hearing on May 14. He urged that stricter standards be applied to Martin-Marietta because of past and future damage to crops from fluoride emissions and suggested a case-by-case approach, rather than lumping industries under the same standards.

Joe Byrne, Martin Marietta, complained that it was unfair to reopen testimony on this item after a hearing had already been held. He also found fault with the subject of the public hearing on May 14.

It was MOVED by Commissioner Somers, seconded by Commissioner Bishop, and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM I - REQUEST FOR AN EXTENSION OF A VARIANCE BY MAZAMA PLYWOOD COMPANY, SUTHERLIN, FROM OAR 340-25-315(1)(b), VENEER DRYER EMISSION LIMITS.

Agenda Item I is a request by Mt. Mazama Plywood Company for a six-month extension of a variance for there veneer dryers which they operate in Sutherlin. The current variance authorizes the company to exceed the Department's opacity limits for veneer dryers and requires demonstration of compliance by July 1, 1983. The company did submit a control strategy which was approved by the Department. However, detailed plans were not submitted and purchase orders have not been issued as required by the compliance schedule.

The Department is recommending that the company be allowed additional time to submit detailed plans and issue purchase orders and be required to meet existing construction and compliance demonstration dates.

Director's Recommendation

Based upon the Summation, it is recommended that conditions 1 and 2 of the variance granted by the EQC on July 17, 1981, be amended as follows:

1. By July 1, 1982, submit to the Department approvable detailed plans and specifications for control of the veneer dryer emissions.

2. By September 1, 1982, issue purchase orders for the necessary control equipment and affirm maintenance of schedule increments 3, 4, and 5 of the July 17, 1981 variance.

It was MOVED by Commissioner Somers, seconded by Commissioner Bishop, and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM K - REQUEST FOR VARIANCE FROM OAR 340-25-315()(b) VENEER DRYER EMISSION LIMITS, FOR CHAMPION INTERNATIONAL CORPORATION, LEBANON PLYWOOD DIVISION, STEAM HEATED DRYERS 1-6.

The Commission is being asked to consider a variance request from Champion International Corporation-Lebanon to allow bypass of a portion of their veneer dryer emission control system in violation of the Department's opacity regulations. Due to an industry-wide shortage of hogged fuel, the Company has been forced to reduce the steaming rate of their boilers. This, in turn, has limited the volume of veneer dryer gases which can be controlled by incineration. The Company maintains that this condition is caused by circumstances beyond their control and asks the Commission to consider the economic and employment impacts strict compliance with the Department's regulations would impose.

Director's Recommendation

Based upon the findings in the Summation, it is recommended that a variance from OAR 340-25-315(1)(b), Veneer Dryer Emission Limits, be granted to Champion International Corporation, Lebanon Plywood Division, for operation of up to three steam heated veneer dryers in violation of the Department's emission limits, subject to the following conditions:

1. The veneer dryer control system (hogged fuel boiler incineration) will be operated at maximum efficiency, consistent with fuel availability and quality, to accommodate the most dryers possible.

2. Quarterly reports will be submitted to the Department detailing fuel availability and costs, steaming rates, number of dryers, aborted and forecast for the next quarter.

3. If the Department determines that the veneer dryer emissions cause significant adverse impact on the airshed, this variance may be revised or revoked.

4. This variance shall expire July 1, 1983.

It was MOVED by Commissioner Somers, seconded by Commissioner Bishop, and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM L - PROPOSED ADOPTION OF AMENDMENTS TO HAZARDOUS WASTE MANAGEMENT RULE, OAR 340-63-125.

At the December 4, 1981, Commission meeting, the staff proposed amendments to portions of the hazardous waste management rules dealing with waste pesticides and empty (hazardous material) containers. Although the majority of the proposed rule changes were adopted, the proposed design guidelines for use in approving plans for waste pesticide management facilities were not.

Subsequent to the December 4, 1981, Commission meeting, the staff met with representatives of the Department of Transportation-Division of Aeronautics and the Oregon Agricultural Aviator Association on January 14, 1982. Then on March 18, 1982, the staff held the authorized public hearing in Room 1400 of DEQ's office in Portland, Oregon. It was again concluded that generalized performance standards would provide specific enough design objectives while retaining flexibility to account for specific site condition. No major objections were raised to the staff's current proposal.

The staff is now requesting the Environmental Quality Commission to adopt the proposed amendment to Hazardous Waste Management Rule OAR 340-63-125 "Appendix: A Performance Standards for Waste Pesticide Management Systems."

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt the proposed amendments to the Department's Hazardous Waste Management Rule OAR 340-63-125.

Paul Burkett, Administrator, Aeronautics Division of ODOT, appeared to say that he was comfortable with the staff proposal.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess, and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM M - PUBLIC HEARING ON QUESTION OF EXTENDING DATE ON PROHIBITION OF CESSPOOLS TO SERVE NEW CONSTRUCTION, OAR 340-71-335.

This item is a public hearing on the question of extending the date on prohibition of cesspools to serve new construction. At the last meeting, the EQC adopted a second temporary rule extending the prohibition date to today, at the request of the Homebuilders Association and Multnomah County. The Homebuilders indicated a desire to initiate a county systems development charge ordinance and to investigate the possibility of a users fee for existing cesspools, as a condition for extending the prohibition date.

The proposed rule amendments would extend the October 1, 1981, prohibition date for cesspools to January 1, 1985, provided Multnomah County adopts a systems development charge ordinance by October 1st of this year.

Director's Recommendation

Based upon the Summation, after public hearing, it is recommended that the Commission amend the permanent rule, OAR 340-71-355, as set forth in Attachment "A", extending the cesspool prohibition date, the rule amendments to be effective upon filing with the Secretary of State.

Burke Raymond, Multnomah County, reported on the accomplishments since the last meeting regarding a systems development charge process and said he was in favor of the proposed proposed action.

Kevin Hanway, attorney representing Oregon Homebuilders Association, described the proposed method for levying assessments and service charges which will be in effect by October 1.

Chairman Richards proposed an amendment to be made to the proposed rule, OAR 340-71-335(2)(b), as follows:

"... shall not later than July 1, 1983, submit to the Department an assessment of the feasibility of imposing user fees on existing cesspools and appropriate exemptions therefrom, and by July 1, 1984 ..."

[Underlined language to be added.]

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess, and passed unanimously that the Director's Recommendation, as amended, be approved.

AGENDA ITEM N - INFORMATIONAL REPORT - DEQ ACTIVITIES FOR MEETING FEDERAL REQUIREMENTS TO PROTECT VISIBILITY IN CLASS I AREAS.

Congress, and subsequently EPA, promulgated requirements to protect visibility in Class I Areas. States were required to incorporate visibility protection for Class I Areas into their State Implementation Plan.

While the Department has drafted a visibility protection plan, EPA and Congress have given indication they may consider changes to the visibility plan requirements. As a result, the Department, Oregon industries, and affected government agencies favor not adopting a visibility plan until the final federal direction is clear. However, there is widespread support to implement an adequate monitoring program.

Instead of spending limited staff and Commission time trying to adopt the draft plan, the Department proposes to:

1. Use limited EPA special funds to conduct monitoring;

2. Use the recommendations of a special visibility monitoring task force to help design a more adequate program, and

3. Suspend adoption of a final visibility plan until potential changes are resolved.

Director's Recommendation

This is an informational report and no formal action by the Commission is necessary. However, it is recommended that the Commission confirm the Department's proposed position on this matter, namely:

1. Some limited effort should be directed toward preserving, protecting and enhancing the air quality in Oregon's 12 Class I areas, considering their importance to the state's tourist industry and their value as a nearby recreational resource to the inhabitants of the state of Oregon.

2. Adoption of a complete visibility plan to meet existing federal rules should be suspended until petitions to EPA and the Clean Air Act reauthorization are resolved, or until June 1, 1985.

3. Development and implementation of a baseline visibility monitoring program be immediately pursued with priority given to monitoring in the vicinity of the Mt. Hood, Mt. Jefferson/ Three Sisters, and Wallowa wilderness area and Crater Lake National Park.

Chairman Richards suggested removing the word "limited" from Paragraph #1 of the Director's Recommendation.

The following language was also proposed at the end of Paragraph #2 of the Director's Recommendation:

> "... are resolved, or until June 1, 1983, whichever shall first occur."
>
> [Underlined language to be added.]

It was MOVED by Commissioner Somers, seconded by Commissioner Bishop, and passed unanimously that the Director's Recommendation, as amended, be approved.

AGENDA ITEM O - CITY OF COTTAGE GROVE: SEWERAGE SYSTEM IMPROVEMENT PROGRAM

Cottage Grove has had difficulty complying with conditions of their NPDES Permit and Consent Agreement. Department staff have been working closely with the City since 1978 to solve the problems. The City has repeatedly been just beyond those eligible for Step III sewerage construction grants. Cottage Grove has proposed a phased construction program based upon local funds and use of the relatively inexpensive money in the Pollution Control Bond Fund. The proposal is similar to Seaside. Staff recommends EQC concurrence with Cottage Grove's phased compliance program.

Director's Recommendation

1. Based on the Summation, it is recommended that the Commission approve, in concept, the alternative sewerage system improvement program proposed by the City of Cottage Grove.

2. Direct the Department to enter into a revised Stipulated Agreement and its attendant negotiations after the May 18 election to reflect details of this program or an appropriate alternative.

Bill Whiteman, Cottage Grove mayor, answered questions from the Commission regarding the bond issue.

It was MOVED by Commissioner Burgess, seconded by Commissioner Somers, and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM P - PROPOSED ADOPTION OF GRAVEL-LESS DISPOSAL TRENCH ALTERNATIVE ON-SITE SYSTEMS RULES, OAR 340-71-355 AND OAR 340-73-060(2)(f).

At the March 5, 1982, meeting, the Commission was provided a staff report requesting adoption of a number of proposed rule amendments. During discussion, some issues were raised with respect to a proposed new alternative called the gravel-less disposal trench system. The Commission decided to defer action on the proposed gravel-less disposal trench alternative system rule and the corresponding gravel-less pipe specification, while adopting the other proposed rule amendments. Staff were directed to reexamine the gravel-less disposal trench concept, including the pipe specification, and provide a report and recommendation to the Commission at this meeting.

Director's Recommendation

Based upon the Summation, it is recommended the Commission adopt the proposed gravel-less disposal trench alternative on-site systems rules, OAR 340-71-355 and OAR 340-73-060(2)(f), as set forth in Attachment "E".

It was MOVED by commissioner Somers, seconded by Commissioner Bishop, and passed unanimously to delay action on this matter until the next regular EQC meeting on June 11, 1982.

AGENDA ITEM Q - REQUEST BY CITY OF PORTLAND TO AMEND REVENUE BOND PURCHASE AGREEMENT (ITEM H, DECEMBER 4, 1981 EQC AGENDA), INCLUDING REVIEW AND RECOMMENDATIONS BY BOND COUNSEL ON THE FORM OF AGREEMENT USED BY THE DEPARTMENT.

The City of Portland requested that we amend some language in the bond purchase agreement approved at the December 4, 1981, EQC meeting.

The one important issue concerns the addition of the words, "if the Department deems itself insecure or..." to the section establishing criteria for the Department to specify actions to prevent defaults.

It appears that this could inhibit future bond sales by the city and we are therefore recommending that the phrase be deleted.

The staff report also contains responses to other questions raised by the Commission.

Director's Recommendation

Based upon the Summation, it is the Director's recommendation that the revenue bond purchase agreement with the City of Portland be amended to delete the words "if the Department deems itself insecure or..." in Part A Section II A 13(ii).

Mark Gardner, City of Portland Financial Manager, and Harvey Rogers, bond counsel, appeared and answered questions from the Commission regarding the Department's security in the revenue bond purchase.

It was MOVED by Commissioner Bishop, seconded by Commissioner Burgess, and passed that the Director's Recommendation be approved. Commissioner Somers voted no.

AGENDA ITEM R - REQUEST FOR CONCURRENCE: PURCHASE OF YAMHILL COUNTY REVENUE BONDS FOR CONSTRUCTION OF SANITARY LANDFILL.

Following the October 9 preliminary proposal, we have worked out the details of the loan arrangement with the County and the operator.

The only item of the many covered in the Staff Report which has not been resolved is Item No. 5. The operator does not feel it is practical or indeed necessary to obtain either the bond insurance or a 20-year letter of credit, requested by the Department as the ultimate security.

After a review of the other safeguards and guarantees included in the document, we have concluded that even without a letter of credit this loan represents an acceptable risk in furtherance of a worthwhile pollution control effort and therefore recommend it for EQC concurrence.

Director's Recommendation

Based on the Summation, it is the Director's recommendation that the Commission concur in the purchase of Yamhill County Pollution Control Revenue Bonds 1982 series A in the amount of $475,000.

Chairman Richards asked if the personal and related party guarantees were adequate in amount to cover the loan. This was confirmed by the Department's Business Manager. The Chairman emphasized that the Commission would expect similar evidence of adequate financial backing and appropriate guarantees if other counties applied for loans using the same revenue bond arrangement to finance independent landfill operations.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess, and passed unanimously that the Director's Recommendation be approved.

There being no further business, the meeting was adjourned.

LUNCH MEETING

1. Visibility: Ann Batson, Air Quality Division, presented a slide show on visibility and the Agency's program for monitoring visibility impairment in Class I areas.

2. Groundwater: Mark Fritzler, Water Quality Public Participation Representative, presented a slide show on the groundwater program of the agency.

Respectfully submitted,

Jan Shaw

Jan Shaw
Commission Assistant

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: Director

Subject: Agenda Item No. B, April 16, 1982, EQC Meeting

February 1982 Program Activity Report

Discussion

Attached is the February 1982 Program Activity Report.

ORS 468.325 provides for Commission approval or disapproval of plans and specifications for construction of air contaminant sources.

Water Quality and Solid Waste facility plans and specifications approvals or disapprovals and issuance, denials, modifications and revocations of air, water and solid waste permits are prescribed by statutes to be functions of the Department, subject to appeal to the Commission.

The purposes of this report are:

1) to provide information to the Commission regarding the status of reported activities and an historical record of project plan and permit actions;

2) to obtain confirming approval from the Commission on actions taken by the Department relative to air contaminant source plans and specifications; and

3) to provide logs of civil penalties assessed and status of DEQ/EQC contested cases.

Recommendation

It is the Director's recommendation that the Commission take notice of the reported program activities and contested cases, giving confirming approval to the air contaminant source plans and specifications.

William H. Young
Director

M. Downs:e
229-6485
March 25, 1982
Attachments
MK616 (1)

DEPARTMENT OF ENVIRONMENTAL QUALITY

Monthly Activity Report

February, 1982

Table of Contents

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

AQ, WQ, SW	February, 1982
(Reporting Unit)	(Month and Year)

SUMMARY OF PLAN ACTIONS

	Plans Received		Plans Approved		Plans Disapproved		Plans
	Month	FY	Month	FY	Month	FY	Pending
Air							
Direct Sources	2	53	6	73	0	0	26
Small Gasoline Storage Tanks Vapor Controls	0	0	0	0	0	0	0
Total	2	53	6	73	0	0	26
Water							
Municipal	19	193	9	165	0	0	21
Industrial	6	33	8	40	0	0	8
Total	25	226	17	205	0	0	29
Solid Waste							
Gen. Refuse	0	31	2	30	0	0	9
Demolition	0	6	0	7	0	0	2
Industrial	1	3	1	11	0	1	4
Sludge	0	3	0	3	0	0	0
Total	1	43	3	51	0	1	15
Hazardous Wastes	-	-	-	-	-	-	-
GRAND TOTAL	28	322	26	329	0	1	70

MAR.2 (4/79)
ME125 (1)

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MONTHLY ACTIVITY REPORT
DIRECT SOURCES
PLAN ACTIONS COMPLETED

COUNTY	NUMBER	SOURCE	PROCESS DESCRIPTION	DATE OF ACTION	ACTION
PORT.SOURCE	625	TRU MIX LEASING CO.	YARD PAVING AT MEDFORD SITE	02/04/82	APPROVED
LANE	650	CLEAR FIR PRODUCTS CO	FUEL BIN VENT BAGHOUSE,LRAPA	09/29/80	APPROVED
POLK	713	GOULD INC	BAGHOUSE INSTAL	02/25/81	APPROVED
MULTNOMAH	792	WINTER PRODUCTS CORP.	ELECTRO PLATE FACILITY	02/11/82	APPROVED
LANE	807	MCKENZIE TRADING CO.	BAGHOUSE	02/03/82	APPROVED
CLACKAMAS	814	MORSE BROS. PRESTRESS INC	BAG FILTER DUST COLLECTOR	02/02/82	APPROVED

TOTAL NUMBER QUICK LOOK REPORT LINES 6

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division (Reporting Unit) — February, 1982 (Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

	Permit Actions Received Month	Permit Actions Received FY	Permit Actions Completed Month	Permit Actions Completed FY	Permit Actions Pending	Sources Under Permits	Sources Reqr'g Permits
Direct Sources							
New	4	26	3	15	22		
Existing	2	17	2	16	17		
Renewals	6	89	9	71	68		
Modifications	1	10	2	21	8		
Total	13	142	16	123	115	1866	1898
Indirect Sources							
New	0	8	1	9	2		
Existing	0	0	0	0	0		
Renewals	0	0	0	0	0		
Modifications	0	3	0	3	0		
Total	0	11	1	12	2	199	201
GRAND TOTALS	13	153	17	135	117	2065	2099

Number of Pending Permits	Comments
22	To be drafted by Northwest Region
12	To be drafted by Willamette Valley Region
3	To be drafted by Southwest Region
3	To be drafted by Central Region
2	To be drafted by Eastern Region
11	To be drafted by Program Planning Division
28	To be drafted by Program Operations
7	Awaiting Public Notice
27	Awaiting the end of the 30-day period
115	TOTAL

MAR.5 (8/79) AA1556 (1)(a)

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MONTHLY ACTIVITY REPORT
DIRECT SOURCES
PERMITS ISSUED

COUNTY	SOURCE	PERMIT NUMBER	APPL. RECEIVED	STATUS	DATE ACHIEVED	TYPE OF APPLICATION
LINN	CREMET	22	0129 07/20/81	PERMIT ISSUED	01/25/82	MOD
BENTON	BOISE CASCADE CORP	02	2476 06/26/81	PERMIT ISSUED	02/01/82	RNW
CURRY	R D TUCKER SAWMILL	03	0009 10/07/81	PERMIT ISSUED	02/01/82	RNW
DESCHUTES	NISWONGER-REYNOLDS, INC.	09	0067 12/01/81	PERMIT ISSUED	02/01/82	NEW
CLACKAMAS	JOE BERNERT TOWING CO	05	2657 09/25/81	PERMIT ISSUED	02/10/82	EXT
DOUGLAS	LONE STAR MINERALS INC	10	0066 11/10/80	PERMIT ISSUED	02/12/82	RNW
MARION	YOUNG & MORGAN LUMBER CO	24	2312 10/27/81	PERMIT ISSUED	02/18/82	RNW
POLK	JONES ROCK PRODUCTS INC	27	0217 10/08/81	PERMIT ISSUED	02/18/82	RNW
POLK	MCMILLAN SHINGLE COMPANY	27	3003 10/22/81	PERMIT ISSUED	02/18/82	RNW
WASHINGTON	OREGON REG. PRIMATE CTR.	34	2642 09/29/81	PERMIT ISSUED	02/18/82	NEW
PORT.SOURCE	ROY HOUCK CONSTR CO	37	0022 12/03/81	PERMIT ISSUED	02/18/82	RNW
PORT.SOURCE	BARLOW BROS INC	37	0163 11/25/81	PERMIT ISSUED	02/18/82	RNW
PORT.SOURCE	TRU MIX LEASING CO.	37	0249 10/19/81	PERMIT ISSUED	02/18/82	RNW
PORT.SOURCE	SHOTWELL PAVING CO	37	0251 10/14/81	PERMIT ISSUED	02/18/82	NEW
PORT.SOURCE	LES DARR TRUCKING CO.	37	0282 11/30/81	PERMIT ISSUED	02/18/82	EXT
JACKSON	BOISE CASCADE CORP	15	0004 07/10/81	PERMIT ISSUED	02/24/82	MOD

TOTAL NUMBER QUICK LOOK REPORT LINES 16

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division (Reporting Unit) — February, 1982 (Month and Year)

PERMIT ACTIONS COMPLETED

Indirect Source

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Multnomah	Parkrose Business Center 538 Spaces File No. 26-8201	2/26/82	Final Permit Issued

MAR.6 (5/79) AA1557 (1)(a)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — February 1982 (Month and Year)

PLAN ACTIONS COMPLETED - 17

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
MUNICIPAL WASTE SOURCES 9			
Baker	Sixth St. between Auburn Ave. and Carter St. Sanitary Sewer, Baker	2/19/82	Approved
Baker	Carter St. between Fifth St. and Sixth St. Sanitary Sewer, Baker	2/19/82	Approved
Baker	Fifth St. South from Carter St. approx. 252 L.F. Sanitary Sewer, Baker	2/19/82	Approved
Baker	Seventh St. between Place St. and Auburn Ave. Sanitary Sewer, Baker	2/19/82	Approved
Clackamas	Patrol St. Sanitary Sewer Extension Molalla	2/19/82	Approved
Jackson	Perrydale Ave. Sanitary Sewer BCVSA	2/19/82	Approved
Clackamas	Causey/Montery Sanitary Sewer CCSD No. 1	2/19/82	Approved
Lane	Eighth St., Extension of Sanitary Sewer Veneta	2/19/82	Approved
Lane	Wellette, Standard Sewer Specifications Veneta	2/19/82	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — February 1982 (Month and Year)

PLAN ACTIONS COMPLETED - 17

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
INDUSTRIAL WASTE SOURCES 8			
Yamhill	Publishers Paper Newberg, Phase I Modification to Waste Treatment System	2/8/82	Approved
Multnomah	Winter Products Corp. Electroplating Pretreatment Portland	2/17/82	Approved
Lane	Borden Chemical Springfield, Spill Retention Wall	2/17/82	Approved
Linn	Teledyne Wah Chang Spill Containment Berms Albany	2 /17/82	Approved
Lane	Springfield Creamery Lagoon and Irrigation System, Springfield	2/17/82	Withdrawn
Linn	Teledyne Wah Chang PCB Waste Storage Facility, Albany	2/17/82	Approved
Lane	States Industries Eugene, Wash Water Recycle System	2/17/82	Approved
Lane	U & R Trucking Rock Pad & Sump for Oil Clean-up Springfield	2/17/82	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — February, 1982 (Month and Year)

SUMMARY OF WATER PERMIT ACTIONS

	Permit Actions Received				Permit Actions Completed				Permit Actions Pending		Sources Under Permits	Sources Reqr'g Permits
	Month		Fis.Yr.		Month		Fis.Yr.					
	*	/**	*	/**	*	/**	*	/**	*	/**	* /**	* /**
Municipal												
New	0	/3	1	/11	2	/2	4	/10	0	/8		
Existing	0	/0	0	/0	0	/0	0	/0	0	/0		
Renewals	9	/6	45	/21	0	/2	32	/18	30	/17		
Modifications	0	/0	1	/0	0	/0	5	/1	1	/0		
Total	9	/9	47	/32	2	/4	41	/29	31	/25	238/104	238/112
Industrial												
New	1	/1	4	/5	1	/0	4	/13	3	/14		
Existing	0	/0	0	/0	0	/0	0	/0	0	/1		
Renewals	9	/3	53	/20	5	/3	23	/18	49	/18		
Modifications	1	/0	10	/0	1	/0	11	/2	2	/0		
Total	11	/4	67	/25	7	/3	38	/33	54	/33	367/174	370/189
Agricultural (Hatcheries, Dairies, etc.)												
New	0	/0	1	/0	0	/0	0	/0	1	/0		
Existing	0	/0	0	/0	0	/0	0	/0	0	/0		
Renewals	0	/0	1	/0	0	/0	1	/0	0	/0		
Modifications	0	/0	0	/0	0	/0	0	/0	0	/0		
Total	0	/0	2	/0	0	/0	1	/0	1	/0	53 /19	54 /19
GRAND TOTALS	20	/13	116	/57	9	/7	80	/62	86	/58	658/297	662/320

* NPDES Permits
** State Permits

13 General Permits Granted

MAR.5W (8/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — February 1982 (Month and Year)

PERMIT ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
MUNICIPAL AND INDUSTRIAL SOURCES - NPDES PERMITS (8)			
Jackson	Boise Cascade Medford (Sawmill & Plywood Mill)	2-3-82	Permit Renewal
Coos	Coos Bay Timber Operation (Kenrock Quarry)	2-3-82	Permit Renewal
Coos	Coos Bay Timber Operation (Koostone Quarry)	2-3-82	Permit Renewal
Marion	Castle & Cooke Foods (Mushroom Division) Salem	2-18-82	Permit Renewal
Lane	Weyerhaeuser Co. Cottage Grove	2-18-82	Permit Renewal
Lincoln	Makai Properties Seal Rock, STP	2-24-82	Permit Issued
Clackamas	Hoodland Service District STP	2-24-82	Permit Issued
Various	Oregon F & W Fisheries Enhancement Proj.	2-25-82	Permit Issued
MUNICIPAL AND INDUSTRIAL SOURCES - STATE PERMITS (7)			
Deschutes	Sisters Land Associates (RIP's Ranch House Restaurant) STP	2-3-82	Permit Issued
Marion	Forest Glen RV Park (Paul Vettrus) STP	2-18-82	Permit Issued
Lane	Bohemia, Inc. Junction City, Plywood	2-22-82	Permit Renewal
Grant	City of John Day STP	2-22-82	Permit Renewal
Yamhill	Delphian School Sheridan, STP	2-22-82	Permit Renewal
Lane	The Clorox Co. Kingsford Co., Div. Springfield	2-22-82	Permit Renewal

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — February 1982 (Month and Year)

PERMIT ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal and Industrial Sources Cont'd.			
Baker	U. S. National Bank (Brandenthaler Estate)	2-22-82	Permit Renewal
MUNICIPAL AND INDUSTRIAL SOURCES - MODIFICATIONS (1)			
Wasco	Stadelman Fruit The Dalles Cherry	2-22-82	Addendum #1
MUNICIPAL & INDUSTRIAL SOURCES GENERAL PERMITS (13)			
Cooling Water - New Permit No. 0100-J, File No. 32539 (2)			
Linn	Skylines Products Harrisburg 3079J/82095	1-4-82	Transferred to General Permit
Lane	Dow Corning Corporation Springfield /25192	2-24-82	General Permit 0100J Issued. Also 0200J * Issued for Filter Backwash Facilities
Filter Backwash - New Permit No. 0200-J, File No. 32540 (3) *			
Lane	Eugene Water & Electric Bd. Hayden Bridge Filter Plant 3039J/28385	2-17-82	Transferred to General Permit
Jackson	City of Gold Hill, WTP /33902	2-23-82	Issued General Permit
Sea Food Processing - New Permit 0900-J, File No. 32585 (7)			
Coos	Hallmark Fisheries Charleston 2683J/36310	2-3-82	Transferred to General Permit
Clatsop	Ocean Foods of Astoria 2707J/62964	2-3-82	Transferred to General Permit
Tillamook	Pierre Marchand Seafoods, Inc. Garibaldi 2624J/52890	2-3-82	Transferred to General Permit
Lincoln	Yaquina Bay Fish Co. Newport 2863J/99381	2-4-82	Transferred to General Permit

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — February 1982 (Month and Year)

PERMIT ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Seafood Processing Cont'd.			
Douglas	Inner-Tidal Seafood Co. Winchester Bay 3093J/41900	2-17-82	Transferred to General Permit
Clatsop	Pacific Shrimp, Inc. Warrenton 2695J/66733	2-17-82	Transferred to General Permit
Tillamook	Smith Pacific Shrimp Garibaldi 2597J/82682	2-24-82	Transferred to General Permit
Gravel Mining or Processing - New Permit No. 1000, File No. 32565 (1)			
Yamhill	C. C. Meisel McMinnville 2532/55549	2-26-82	Transferred to General Permit

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division (Reporting Unit) — February 1982 (Month and Year)

SUMMARY OF SOLID AND HAZARDOUS WASTE PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sites Under Permits	Sites Reqr'g Permits
	Month	FY	Month	FY			
General Refuse							
New	2	16	2	11	4		
Existing	-	2	-	5	-		
Renewals	1	81	5	71	16		
Modifications	-	10	-	23	1		
Total	3	109	7	110	21	166	166
Demolition							
New	-	4	-	8	-		
Existing	-	2	-	-	2		
Renewals	1	5	-	5	3		
Modifications	-	2	-	4	-		
Total	1	13	0	17	5	21	21
Industrial							
New	-	16	1	17	1		
Existing	3	7	-	-	1		
Renewals	-	35	4	45	9		
Modifications	-	4	-	5	-		
Total	3	62	5	67	11	101	101
Sludge Disposal							
New	-	5	-	6	-		
Existing	-	-	-	1	-		
Renewals	1	6	1	4	2		
Modifications	-	1	-	2	-		
Total	1	12	1	13	2	15	15
Hazardous Waste							
New	48	684	48	684	-		
Authorizations	-	-	-	-	-		
Renewals	-	-	-	-	-		
Modifications	-	-	-	-	-		
Total	48	684	48	684	-	1	1
GRAND TOTALS	56	880	61	891	39	304	304

SC306.A
MAR.5S (4/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division (Reporting Unit) — February 1982 (Month and Year)

PERMIT ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Coos	Weyerhaeuser - West Coast Existing Site	2/10/82	Letter Authorization
Lane	McKenzie Bridge Existing Site	2/24/82	Permit Renewed
Malheur	Lytle Boulevard New Site	2/24/82	Permit Issued
Klamath	Langell Valley Existing Site	2/25/82	Permit Renewed
Jackson	Boise Cascade - Medford Existing Site	2/25/82	Permit Renewed
Douglas	Lemolo Transfer Station New Site	2/25/82	Permit Issued
Klamath	Sprague River Existing Site	2/25/82	Permit Renewed
Jackson	KOGAP Existing Site	2/25/82	Permit Renewed
Linn	Giles Pond Existing Site	2/25/82	Permit Renewed
Lane	Dow Corning - Clearwater New Site	2/25/82	Permit Issued
Lincoln	T & L Septic Service Existing Site	2/25/82	Permit Renewed
Benton	Monroe Transfer Station Existing Site	2/25/82	Permit Renewed
Multnomah	MDC - North Portland Existing Site	2/25/82	Permit Renewed

SC306.D
MAR.6 (5/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division (Reporting Unit) — February 1982 (Month and Year)

HAZARDOUS WASTE DISPOSAL REQUESTS

CHEM-SECURITY SYSTEMS, INC., GILLIAM CO.

WASTE DESCRIPTION

Date	Type	Source	Quantity Present	Quantity Future
DISPOSAL REQUESTS GRANTED (48)				
OREGON (11)				
1/28	Pesticides	Fed. agency	550 lb.	0
1/28	Printing ink sludge	Printer	0	20 drums
1/28	Asbestos insulation	Plywood mill	9 drums	0
1/28	PCB-contaminated rags	Plywood mill	2 drums	0
1/28	Trichloroethylene tank bottoms	Chainsaw manf.	0	70 drums
2/10	Welding electrodes	Chainsaw manf.	0	18 lb.
2/17	Paint thinner	Exhibit fabrication	0	24 drums
2/19	PCB capacitors	Grain elev.	0	700 lb.
2/19	Ink sludge	Ink manuf.	0	5 drums
2/23	Rotoclone sludge with zirconium fines	Manuf. of zirconium	40 cu.yd.	30 cu.yd.
2/23	Muriatic acid	Electroplat.	0	8,000 gal.
WASHINGTON (26)				
1/26	Chlorinated organics-contam. glass tubes	Chemical co.	0	75 cu.ft.

SC306.E
MAR.15 (1/82)

WASTE DESCRIPTION

Date	Type	Source	Quantity	
			Present	Future
1/26	Chlorinated organics-contam. ceramic tiles	Chemical co.	0	200 cu.ft.
1/26	Lime slurry with chlorinated organic compounds	Chemical co.	0	90 cu.ft.
1/26	Sandblasting material and rust scale with chlorinated organic compounds	Chemical co.	0	14,000 lb.
1/26	Hexachloroethane crystals	Chemical co.	0	17,500 lb.
1/26	Tank bottoms with chlorinated organic compounds	Chemical co.	0	14,000 lb.
1/26	Water with chlorinated organic compounds	Chemical co.	0	1,200 gal.
1/26	Calcium hyphochlorite with chlorinated organic compounds	Chemical co.	50,000 gal.	10,000 gal.
1/26	Steel pipes with chlorinated organic compounds	Chemical co.	0	40 cu.yd.
1/28	Flue dust containing lead	Chemical co.	40 drums	15 drums
1/28	Trichlorobenzene	Chemical co.	0	4 drums
1/28	Penta sludge	Wood preserv.	0	15 drums
1/28	Penta-contam. soil	Chemical co.	25 cu.yd.	25 cu.yd.
2/4	Trichloroethylene	Manuf. of ag. equip.	0	4,000 gal.
2/4	Sodium nitrate, poly-phosphate, EDTA cleaning solution	Shipbuilding	0	12,000 gal.
2/4	Phosphoric acid and glycolic acid	Shipbuilding	0	12,000 gal.

SC306.E
MAR.15 (1/82)

WASTE DESCRIPTION

Date	Type	Source	Quantity Present	Quantity Future
2/4	Methylene chloride and toluene	Shipbuilding	0	800 gal.
2/5	Paint sludge	Oil co.	0	55 drums
2/5	Asbestos insulation	Hospital	0	1,000 lb.
2/10	Paint sludge	Metal shop	0	30 drums
2/23	PCB capacitors	Fed. facility	0	6 drums
2/23	PCB liquids	Fed. facility	0	30 drums
2/23	Phosphoric acid	Fed. agency	3,450 lb.	0
2/24	Black dross from reclamation of aluminum skim	Aluminum co.	0	18,000 tons
2/24	Mineral acids	Chemical co.	0	8 drums
2/24	Organic solvents and chemical reagents	Chemical co.	0	8 drums
OTHER STATES (11)				
2/4	Bottom sludge containing paint pigments, solvents, resins, etc. (British Columbia)	Solvent recovery	0	300 drums
2/16	PCB transformers, capacitors, liquids (Alaska)	Electric utility	0	84 drums
2/17	PCB-contaminated soil (Utah)	University	0	no estimate
2/19	Freight-damage chemical products (B.C)	Transport.	17 drums	0
2/19	Hg-contaminated materials (B.C.)	Airline co.	0	2 drums
2/19	Diatomaceous earth with mercury compounds and caustic sol. (B.C.)	Chemical co.	2,000 gal.	4,800 lb.

SC306.E
MAR.15 (1/82)

WASTE DESCRIPTION

Date	Type	Source	Quantity Present	Quantity Future
2/19	Solvents, MEK, toluene, Freon (Utah)	Chemical co.	0	300 drums
2/19	PCB capacitors, transformers, etc. (Utah)	Chemical co.	0	200 cu.ft.
2/19	Leaded gasoline tank bottoms (Hawaii)	Oil co.	0	550 gal.
2/19	Leaded gasoline tank bottoms (Hawaii)	Oil co.	0	1,100 gal.
2/23	Waste treatment sludge (Utah)	Electroplat.	0	8,000 gal.

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Noise Control Program	February, 1982
(Reporting Unit)	(Month and Year)

SUMMARY OF NOISE CONTROL ACTIONS

Source Category	New Actions Initiated		Final Actions Completed		Actions Pending	
	Mo	FY	Mo	FY	Mo	Last Mo
Industrial/ Commercial	11	20	3	10	87	74
Airports	0	0	1	9	0	0
TOTAL	11	20	4	19	87	74

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Noise Control Program	February, 1982
(Reporting Unit)	(Month and Year)

FINAL NOISE CONTROL ACTIONS COMPLETED

County	Name of Source and Location	Date	Action
Umatilla	Lifeguard III Heliport Pendleton	3/1/82	Boundary Approved

CIVIL PENALTY ASSESSMENTS

DEPARTMENT OF ENVIRONMENTAL QUALITY
1982

CIVIL PENALTIES ASSESSED DURING MONTH OF FEBRUARY, 1982:

Name and Location of Violation	Case No. & Type of Violation	Date Issued	Amount	Status
Pacific Coca-Cola Bottling Company	AQOB-NWR-82-06 Open burned prohibited materials.	2/3/82	$50	Default Order and Judgment issued 3/9/82.

G0821

ACTIONS	LAST MONTH	PRESENT
Preliminary Issues	5	5
Discovery	1	1
Settlement Action	3	3
Hearing to be scheduled	7	7
Hearing scheduled	0	2
HO's Decision Due	2	2
Briefing	0	0
Inactive	2	2
SUBTOTAL of Active Files	20	22
HO's Decision Out/Option for EQC Appeal	1	0
Appealed to EQC	1	0
EQC Appeal Complete/Option for Court Review	0	0
Court Review Option Pending or Taken	1	1
Case Closed	1	1
TOTAL Cases	24	24

15-AQ-NWR-76-178	15th Hearing Section case in 1976 involving Air Quality Division violation in Northwest Region jurisdiction in 1976; 178th enforcement action in Northwest Region in 1976.
ACDP	Air Contaminant Discharge Permit
AQ	Air Quality
CLR	Chris Reive, Enforcement Section
DEC Date	Date of either a proposed decision of hearings officer or a decision by Commission
$	Civil Penalty Amount
ER	Eastern Region
Fld Brn	Field Burning incident
RLH	Robb Haskins, Assistant Attorney General
Hrngs	Hearings Section
Hrng Rfrl	Date when Enforcement Section requests Hearing Section schedule a hearing
VAK	Van Kollias, Enforcement Section
LMS	Larry Schurr, Enforcement Section
MWR	Midwest Region (now WVR)
NP	Noise Pollution
NPDES	National Pollutant Discharge Elimination System wastewater discharge permit.
NWR	Northwest Region
FWO	Frank Ostrander, Assistant Attorney General
OSS	On-Site Sewage
P	Litigation over permit or its conditions
Prtys	All parties involved
Rem Order	Remedial Action Order
Resp Code	Source of next expected activity in case
SW	Solid Waste Division
SWR	Southwest Region
T	Litigation over tax credit matter
Transcr	Transcript being made of case
Underlining	New status or new case since last month's contested case log
WVR	Willamette Valley Region
WQ	Water Quality Division

February 1982

DEQ/EQC Contested Case Log

Pet/Resp Name	Hrng Rqst	Hrng Rfrrl	DEQ Atty	Hrng Date	Resp Code	Case Type & No.	Case Status
POWELL, Ronald	11/77	11/77	RLH	01/23/80	Hrgs	$10,000 Fld Brn 12-AQ-MWR-77-241	Decision drafted.
WAH CHANG	04/78	04/78	RLH		Prtys	16-P-WQ-WVR-78-2849-J NPDES Permit Modification	Current permit in force. Hearing deferred.
WAH CHANG	04/78	04/78	RLH		Prtys	08-P-WQ-WVR-78-2012-J NPDES Permit Modification	Current permit in force. Hearing deferred.
M/V TOYOTA MARU No. 10	12/10/79	12/12/79	RLH		Hrgs	17-WQ-NWR-79-127 Oil Spill Civil Penalty of $5,000	Ruling due on requests for partial summary judgment.
LAND RECLAMATION, INC., et al	12/12/79	12/14/79	FWO	05/16/80		19-P-SW-329-NWR-79 Permit Denial	Court of Appeals sustained EQC permit denial 2/8/82.
MEDFORD CORPORATION	02/25/80	02/29/80		05/16/80	Prtys	07-AQ-SWR-80 Request for Declaratory Ruling	Inquiry on resolution progress issued 2-8-82.
MORRIS, Robert	11/10/80	11/14/80	RLH		Resp	31-SS-CR-80 Permit revocation	Resp. to amend application.
HAYWORTH, John W. dba/HAYWORTH FARMS INC.	12/02/80	12/08/80	LMS	04/28/81	Hrgs	33-AQ-WVR-80-187 Field burning civil penalty of $4,660	Decision due.
HOPPER, Harold	12/09/80	12/09/80	RLH		Dept	36-SS-NWR-80-197 Permit revocation	Dept. to file objections to filing of amended notice.
JENSEN, Carl F. dba/JENSEN SEED & GRAIN INC.	12/19/80	12/24/80	CLR	04/16/81	Resp	37-AQ-WVR-80-181 Field burning civil penalty of $4,000	EQC denied appeal of H.O.'s decision.
~~JAL CONSTRUCTION, INC.~~	~~02/06/81~~	~~02/09/81~~	~~LMS~~	~~06/12/81~~	~~Resp~~	~~06-AQOB-NWR-81-02 Open burning civil penalty of $3000~~	~~No appeal to EQC. Case closed.~~
CURL, James H., et al	02/09/81	02/12/81			Prtys	07-SS-CR-81 Request for Declaratory Ruling	Inquiry on settlement progress mailed 1-29-82.
OREGON SHORES ASSOCIATES,LTD.	02/11/81	03/09/81	RLH		Hrgs	09-WQ-NWR-81	Resp. filed request for dismissal 3/1/82.
MAIN ROCK PRODUCTS,INC	03-11-81	03-16-81	CLR		Prtys	10-WQ-SWR-81-16 Water Quality civil penalty of $6,000	Settlement effort continues, resolution anticipated by 3-31-82.
MEAD, Mel	04-04-81	04-08-81	LMS		Prtys	13-SS-SWR-81-25 14-SS-SWR-81-26 Subsurface sewage permit denial	Discovery.
Pullen, Arthur W. dba/Lakes Mobile Home Park	07-15-81	07-15-81	CLR		Hrgs	16-WQ-CR-81-60	To be scheduled.
WESTERN SURFACING, INC.	09/09/81	09/09/81	LMS	4/20/82	Hrgs	18-AQ-NWR-81-79	Hearing scheduled 4/20/82.
FRANK, Victor	09-23-81	09-23-81	CLR		Hrgs	19-AQ-FB-81-05 FB civil penalty of $1,000	To be scheduled.
GATES, Clifford	10-06-81		CLR		Hrgs	21-SS-SWR-81-90	To be scheduled.
LANGDON, George	10-13-81		CLR	4/27/82	Hrgs	22-AQ-FB-81-04	Scheduled for hearing.
SPERLING, Wendell dba/Sperling Farms	11-25-81	11-25-81	CLR		Hrgs	23-AQ-FB-81-15 FB Civil Penalty of $3,000	To be scheduled.
DeRaeve, Marvin	12-11-81	12-10-81	LMS		Prtys	25-AQ-FB-81-17 FB Civil Penalty of $3,000.	To be scheduled.
Nofziger, Leo	12-15-81	1-6-82	LMS		Hrgs	26-AQ-FB-81-18 FB Civil Penalty of $1,500.	To be scheduled.

February 1982

DEQ/EQC Contested Case Log

Pet/Resp Name	Hrng Rqst	Hrng Rfrrl	DEQ Atty	Hrng Date	Resp Code	Case Type & No.	Case Status
Old Mill Marina		3/4/82	LMS		Hrgs	27-AQOB-NWR-82-01 Open Burning Civil Penalty	Answer filed 3/4/82.
Green, Douglas	9/28/81	10/07/81	LMS	4/6/82	Prtys	20-AQ-FB-81-03 FB Civil Penalty of $1,000	Hearing scheduled 4/6/82. Inadvertently omitted from prior log. Reinstated.

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: Director

Subject: Agenda Item C, April 16, 1982, EQC Meeting

TAX CREDIT APPLICATIONS

Director's Recommendation

It is recommended that the Commission take the following actions:

1. Issue Pollution Control Facility Certificates to:

Appl. No.	Applicant	Facility
T-1335	Chevron U.S.A., Inc.	82 vapor recovery systems
T-1360	Boise Cascade Corp.	Air cooled transformer
T-1366	Weyerhaeuser Company	Construction, modification, and sealing of two veneer dryers
T-1383	Ore-Ida Foods, Inc.	Pumps, hydrogritter/classifier, 600 gallon tank, and associated piping
T-1411	Teledyne Industries	Standby electric generator with automatic starting and switching
T-1449	#1 Boardman Station	Closed recycle system for plant condenser cooling water
T-1453	Willamette Industries	Wood shaving storage building and related conveying equipment
T-1482	Irinaga Brothers, Inc.	Vapor control system
T-1490	Rosboro Lumber Co.	Veneer dryer stack emission control system
T-1493	McCormick & Baxter Creosoting Co.	Acoustical enclosure, sound trap, and mufflers for log handling vehicles
T-1498	Roger De Jager	Manure control system
T-1499	Robert C. Niehus	Manure collection and holding facility
T-1501	Tru-Mix Leasing Co.	Yard paving
T-1504	Tektronix, Inc.	Chemical recycle collection center

2. Revoke and reissue Pollution Control Facility Certificate 1042 issued to Butzin Orchard (see attached review report).

William H. Young

CASplettstaszer
229-6484
3/25/82
Attachments

PROPOSED APRIL 1982 TOTALS

Air Quality	$ 2,646,527
Water Quality	31,047,437
Solid/Hazardous Waste	82,049
Noise	15,370
	$33,791,383

CALENDAR YEAR TOTALS TO DATE

Air Quality	$ 258,582
Water Quality	4,922,188
Solid/Hazardous Waste	-0-
Noise	24,846
	$ 5,205,616

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Chevron U.S.A., Inc.
225 Bush Street
San Francisco, California 94104

The applicant owns and operates gasoline service stations in the Portland, Salem and Medford areas that require air contaminant control equipment.

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

2. Description of Claimed Facility

The facility described in this application is the installation of the OPW two point system of gasoline vapor recovery at all underground storage tanks. The claimed facilities are at 82 locations. Upon approval of this tax relief application, the Department will issue a pollution control facility certificate for each location. The locations and costs are itemized on an attached sheet.

Request for Preliminary Certification for Tax Credit was made per Item A on the attached sheet and approved per Item A on attached sheet.

Construction was initiated on the claimed facilities as per Item B on attached sheet, completed as per Item B on attached sheet, and the facilities were placed into operation as per Item B on attached sheet.

Facility Cost: $240,255. Paid invoices were provided for each station.

3. Evaluation of Application

Gas stations in the Portland, Salem and Medford areas that are supplied gasoline from a terminal are required to transfer the vapors displaced during the filling of the storage tanks back to the delivery trucks. The claimed facilities are for the portion of the vapor return system that is installed on the underground storage tanks. The installed two point vapor return system is approved by the Department.

The applicant provided the paid invoices along with the overhead charge and material cost discount for each station. Because each station is considered separately, an accountant's certification was not required for the total cost.

It was not practical for the applicant to hire an accountant to certify the cost because of the geographic spread of the stations and the accounting centers. The material was purchased in one transaction with an itemized invoice for each station. The applicant then got a discount on the total amount. The installations were contracted for with many individual contractors. The contracts varied from one station to 17 stations with the cost for each station listed on the contract. The applicant added 4% overhead charge to the cost of the material and the installation contract for each station.

Since all gasoline storage tanks had submerged fill prior to conversion to vapor control, there is no reduction in gasoline vapor loss to the station operators, and therefore, no return on investment.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that Pollution Control Facility Certificates bearing a total cost of $240,255 with 80% or more allocated to pollution control, be issued for the facilities claimed in Tax Credit Application No. T-1335.

F.A.Skirvin:h
(503) 229-6414
March 23, 1982

Note: The attached list of 82 service stations contains job numbers which are not in numerical order.

Attachment to Application No. T-1335

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
1	275 E. Baseline St., Hillsboro, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	$ 2708
2	2029 Pacific Ave., Forest Grove, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2708
3	9065 S.W. Canyon Rd., Portland, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2812
4	17825 Tualatin Valy. Hwy. Aloha, OR	4/13/79	2/08/80	12/23/80	12/23/80	12/30/80	3	2708
5	9811 SW Capital Hwy., Portland, OR	4/13/79	2/08/80	12/30/80	12/23/80	12/30/80	3	2708
6	6655 SW Scholls Fry. Rd. Beaverton, OR	4/13/79	2/08/80	12/30/80	12/23/80	12/30/80	3	2708
7	21090 SW Pac Hwy., Sherwood, OR	4/13/79	2/08/80	12.30/80	12/23/80	12/30/80	4	3610
8	14470 SW Allen, Beaverton, OR	4/13/79	2/08/80	12/30/80	12/23/80	12/30/80	3	2708
9	2 Monroe Parkway, Lake Oswego, OR	4/13/79	2/08/80	12/30/80	12/23/80	12/30/80	3	2708

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
10	9025 SW Pac. Hwy., Ptld, OR	4/13/79	2/08/80	12/30/80	12/23/80	12/30/80	3	$ 2708
11	13235 SW Pac. Hwy, Tigard, OR	4/13/79	1/30/80	12/30/80	12/23/80	12/23/80	3	2708
12	8517 S.W. Terwilliger Blvd., Ptld., OR	4/13/79	2/08/80	12/30/80	12/23/80	12/23/80	3	2708
13	1671 N.E. Cornell Rd., Hillsboro, OR	4/13/79	2/08/80	12/30/80	12/30/80	12/23/80	3	2708
14	11747 S.W. Pac. Hwy., Tigard, OR	4/13/79	1/30/80	12/30/80	12/23/80	12/23/80	3	2708
15	9145 S.W. Beav. Hills. Hwy, Ptld, OR	4/13/79	2/08/80	12/30/80	12/23/80	12/23/80	3	2708
16	11520 S.W. Canyon Rd., Beaverton, OR	4/13/79	2/08/80	12/30/80	12/23/80	12/23/80	3	2708
17	6451 S.E. Milwaukie, Ptld., OR	4/13/79	2/08/80	12/30/80	12/30/80	12/23/80	3	2620
18	30 W. Powell Blvd., Ptld., OR	4/13/79	2/08/80	12/30/80	12/30/80	12/23/80	3	2670
19	3904 SE Division, Ptld., OR	4/13/79	2/08/80	12/30/80	12/30/80	12/23/80	3	2575

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
20	860 Molalla Ave., Oregon City, OR	4/13/79	2/08/80	12/30/80	12/30/80	12/23/80	3	$ 2640
21	15670 SW Upr. Bns. Ferry, Lake Oswego, OR	4/13/79	2/08/80	12/30/80	12/30/80	12/23/80	3	2620
22	1820 NE Div. Gresham, OR	4/13/79	2/08/80	12/30/80	12/30/80	12/23/80	3	2609
23	10808 SE McLoughlin Blvd, Milw., OR	4/13/79	1/30/80	12/23/80	12/30/80	12/30/80	3	2640
24	1926 McLoughlin Blvd., Oregon City, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2640
25	13625 SE McLoughlin Blvd., Milw., OR	4/13/79	1/30/80	12/23/80	12/30/80	12/30/80	3	2640
26	15710 SE McLoughlin Blvd., Milw., OR	4/13/79	1/30/80	12/23/80	12/30/80	12/30/80	3	2555
81	6217 SE King Rd., Milw., OR	4/13/79	1/30/80	9/25/81	10/09/81	10/09/81	3	3543
27	15901 SE 82nd Dr., Clack., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2649
28	15905 SW Bns. Ferry, Lake Grove, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2640

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
75	621 SE Union Ave., Ptld., OR	4/13/79	12/26/79	11/24/80	12/01/80	12/01/80	3	$ 2800
80	620 SE Union Ave., Ptld., OR	4/13/79	12/26/79	12/23/80	12/21/81	12/21/81	7	6244
29	9140 SW Wilsonville Rd., Lake Grove, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2649
30	551 N. State St., Lake Oswego, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2632
76	325 E. Burnside Exten., Gresh., OR	10/06/80	1/07/81	2/01/81	2/09/81	2/09/81	3	2649
31	1907 NW Marshall, Ptld., OR	4/13/79	2/08/80	8/28/80	9/04/80	9/04/80	3	3855
32	1986 W. Burnside., Ptld., OR	4/13/79	2/08/80	8/28/80	9/04/80	9/04/80	3	2967
33	505 SE 82nd, Ptld., OR	4/13/79	2/08/80	8/28/80	9/04/80	9/04/80	3	2126
34	3514 Comm'l. St., SE, Salem, OR	4/13/79	2/08/80	8/21/80	8/28/80	8/28/80	3	2447
35	10215 SW Parkway, Ptld., OR	4/13/79	2/08/80	8/28/80	9/04/80	9/04/80	3	2780
36	700 SE Thiesen, Milw., OR	4/13/79	1/30/80	8/28/80	9/04/80	9/04/80	3	3368

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
37	12105 N, Jantzen Dr., Ptld., OR	4/13/79	1/30/80	10/21/80	10/28/80	10/28/80	3	$ 3014
38	400 W. Burnside, Ptld., OR	4/13/79	1/30/80	12/23/80	12/30/80	12/30/80	3	2994
39	7515 NW Cornell Rd., Ptld., OR	4/13/79	2/08/80	10/21/80	10/28/80	10/28/80	3	2974
40	1367 NW Cornell Rd., Ptld., OR	4/13/79	1/30/80	10/21/80	10/28/80	10/28/80	3	2975
41	710 SW Columbia, Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2963
42	2230 W. Burnside, Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2955
43	3515 N. Lombard, Ptld., OR	4/13/79	2/08/80	10/21/80	10/28/80	10/28/80	4	3711
44	1850 SW Skyline Blvd., Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	3014
45	4030 NE Fremont, Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2812
46	2333 NE Fremont, Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	5	4201
47	329 NE Broadway, Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2832

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
48	9150 SE Division, Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	$ 2864
49	5935 E. Burnside, Ptld, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2853
50	10215 NE Halsey St., Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2854
51	500 NW Frontage Rd, Troutdale,OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2916
52	4224 NE 122nd Ave., Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2864
53	4719 NE Sandy Blvd., Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2864
54	18010 NE Glisan, Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	3800
55	13110 NE Sandy Blvd., Ptld., OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2812

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
56	Ptld. Int'l. Airport	4/13/79	1/31/80	12/23/80	12/30/80	12/30/80	4	$ 3856
57	575 Court St., NE, Salem, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2913
58	1110 Lancaster Dr., SE, Salem, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2893
82	3650 Market St., Salem, OR	4/13/79	1/30/80	3/03/81	3/17/81	3/17/81	4	1682
59	4235 River Rd. N., Salem, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2913
60	3650 N. Ptld. Rd., Salem, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	4	3648
61	2385 Fairground Rd., NE, Salem, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2893
62	Salem Airport	4/13/79	1/31/80	12/23/80	12/30/80	12/30/80	2	1710
63	461 Valley View Rd., Ashland, OR	4/13/79	1/30/80	10/28/80	11/04/80	11/04/80	3	2103

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
64	2231 Biddle Rd., Medford, OR	4/13/79	1/30/80	10/28/80	11/04/80	11/04/80	3	$ 2197
65	2500 Highway 66, Ashland, OR	4/13/79	2/08/80	10/28/80	11/04/80	11/04/80	3	2197
66	1901 Crater Lake Hwy., Medford, OR	4/13/79	2/08/80	10/28/80	11/04/80	11/04/80	3	2197
67	1101 S. Holly, Medford, OR	4/13/79	1/30/80	10/28/80	11/04/80	11/04/80	3	2275
68	1510 E. Pine, Central Point, OR	4/13/79	2/08/80	10/28/80	11/04/80	11/04/80	3	2171
69	7600 Crater Lake Hwy, White Cty, OR	4/13/79	1/30/80	10/28/80	11/04/80	11/04/80	3	2287
70	1250 Crater Lake Hwy, Medford, OR	4/13/79	3/18/80	10/28/80	11/04/80	11/04/80	3	2245
71	Rogue Valley Skyways, Medford Jackson Airport, Medford, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3	2050
72	105 N. Main St., Ashland, OR	4/13/79	2/08/80	12/23/80	12/30/80	12/30/80	3 (Offset)	6356
73	417 Barnett Rd., Medford, OR	4/13/79	1/30/80	12/23/80	12/30/80	12/30/80	3 (Offset)	8427

Job	Station Location	A Request for Preliminary Certification for Tax Credit: Made On	A: Approved On	B Construction: Initiated On	B: Completed On	B: Placed Into Operation On	No. of Tanks	Cost
77	7085 SW Nyberg Road, Tualatin, OR	11/17/80	1/17/81	2/01/81	2/09/81	2/09/81	3	$ 2068
74	1510 NE 122nd St., Ptld., OR	4/13/79	2/08/80	10/27/80	11/03/80	11/03/80	5	3523
79	1680 S. Shore Blvd., Lake Oswego, OR	1/03/81	3/24/81	2/23/81	3/01/81	3/01/81	3	3497
78	255 NE 238th, Troutdale, OR	1/03/81	3/20/81	2/23/81	3/01/81	3/01/81	3	1990

Application No. T-1360

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Boise Cascade Corporation
Paper Group
P.O. Box 1201
Salem, OR 97309

The applicant owns and operates a pulp and paper mill at Salem.

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

2. Description of Claimed Facility

The facility described in this application is an air cooled transformer which replaced the No. 86 oil cooled transformer near Pringle Creek.

Request for Preliminary Certification for Tax Credit was made May 18, 1978, and approved July 13, 1978. Construction was initiated on the claimed facility May 1979, completed December 1979, and the facility was placed into operation December 1979.

Facility Cost: $81,619.62 (Accountant's Certification was provided).

The Accountant certified a facility cost of $95,333.70. This not only included the cost of installing a new transformer ($81,619.62), but also included costs for relocating an old transformer within the mill. Since the new transformer is the pollution control facility, only those costs directly associated with its installation are considered as the facility cost. It has been agreed upon with the company to reduce the facility cost to $81,619.61.

3. Evaluation of Application

In an effort to contain potential spills of PCBs from electrical transformers, Boise Cascade constructed concrete containment berms around the bases of the oil cooled transformers.

The No. 86 transformer is a 1000 KVA transformer which contains 193 gallons of PCB based cooling oil. Since the unit was located over Pringle Creek where a containment berm could not be constructed, Boise Cascade decided to replace it with an air cooled transformer.

The new unit is a 1500 KVA transformer (50 percent larger) with a purchase price of $57,965. The No. 86 transformer was relocated over a concrete containment berm inside the mill. It was used to replace an older unit which was discarded.

The facility cost breakdown is as follows:

Electrical Supplies and Labor	$22,751.08
1500 KVA Transformer	57,964.99
Engineering	903.55
	$81,619.62

The same pollution control objective could have been achieved by relocating the No. 86 transformer to a safe location within the mill. Boise Cascade has estimated this cost to be $13,714.08. Only 17 percent ($13,714.08 divided by $81,619.61) of the cost of the new facility is allocable to pollution control. This methodology has been discussed and agreed upon with the company.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is less than 20 percent.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $81,619.62 with less than 20 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1360.

CKA:l
WL1504
(503) 229-5325
March 25, 1982

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Weyerhaeuser Company
Wood Products Manufacturing
Post Office Box 389
North Bend, OR 97459

The applicant owns and operates wood products manufacturing facilities at North Bend, Oregon.

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

2. Description of Claimed Facility

The facility described in this application is the extensive construction, modification, and sealing of two veneer dryers to the benefit of controlling fugitive emissions.

Request for Preliminary Certification for Tax Credit was made on March 28, 1979, and approved on May 31, 1979.

Construction was initiated on the claimed facility on April 24, 1979, completed on January 9, 1980, and the facility was placed into operation on January 9, 1980.

Facility Cost: $1,119,986 (Accountant's Certification was provided).

3. Evaluation of Application

In 1979 Weyerhaeuser Company undertook extensive rebuilding, modification, and the installation of mechanical seals on their two veneer dryers at the North Bend mill to accomplish abatement of fugitive emissions. This control was required by a compliance schedule in a Department issued Air Contaminant Discharge Permit. Burley scrubbers had been in place to control dryer exhaust stack emissions since 1976. Less costly schemes to eliminate fugitive emissions had previously been tried but had limited lasting success. No tax credit certifications have been granted for prior fugitive emission control trials.

In order to put the dryer housings in a condition which would maintain the integrity of sealed joints as the dryers expanded and contracted with changing temperatures, structural repairs were made and the dryers were placed on roller supports. Distorted and damaged doors, panels, and floor sections were repaired or replaced.

Dryer panel seams were sealed by a silicon injection which is expected to have long-term life. Mechanical changes were made on the doors and jams to accommodate the use of the new style foam rubber door seals. These seals are expected to require replacement within a year. The overall estimated useful life of the project is seven (7) years.

Dryer No. 2 was converted from two separate in-line heat vessels to a single

housing by closing in the gap between them. This was done as a means to seal the outlet end on the one unit and the inlet end on the other. This modification included the costly work ($111,558) of changing the existing duel veneer transport drive to a single drive. The new closed-in sections and drive system lent this area to be easily turned into a full drying area. Weyerhaeuser claimed the drive system charge for tax credit based on the premise that it was necessitated when the center section was closed in for pollution control reasons. The cost of adding the heating and related equipment was not claimed. No economic benefits resulting from this new heating area was applied.

During the project, the Company incurred costs of $249,849 in dryer modifications not claimed as pollution control. They claimed $1,119,986 for pollution control. The Department believes that the claimed cost should be adjusted to account for discrete parts of the project which do not have pollution control as a substantial purpose.

The cost of changing to a single veneer transport drive to accommodate the additional heating sections in the newly closed-in sections of dryer no. 2 is primarily production related. However, closing in the space which separated the two heating vessels is considered to function to a great extent as pollution control and is an eligible cost. Also, the cost of sand blasting (for the most part) and painting are discrete parts of the project which function as normal maintenance on the production related dryers.

The veneer transport drive cost of $111,558 and the sand blasting and painting cost of $30,570 should not be allocated to pollution control and is deducted from the certified cost ($1,119,986 - $111,558 - $30,570 = $977,858). In addition, the claimed portion of the corporate bond charges, capitalized interest, and construction overhead should be reduced by a proportional amount ($977,858 - $5,405 = $972,453).

The Company has estimated the savings due to sealing the dryers at $134,069 per year. Annual operating expenses for pollution control maintenance was reported to be $105,480. The return on investment is less than 1%. The primary purpose for undertaking the project was pollution control. Therefore, 80% or more of the adjusted project cost is allocable to pollution control.

The dryers are now in compliance with required emission standards.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent

for the purpose of preventing, controlling, or reducing air pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $972,453 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1366.

FAS:ahe
(503) 229-6416
March 17, 1982

Application No. T-1383

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Ore-Ida Foods, Inc.
Ontario Factory
P.O. Box 10
Boise, Idaho 83707

The applicant owns and operates a plant which processes potatoes, onions, and corn into frozen vegetable products at Ontario.

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

2. Description of Claimed Facility

The facility described in this application consists of:

a. Two Wemco Model CE Pumps;
b. One Wemco 18-Inch Hydrogritter/Classifier;
c. One 600 Gallon Steel Tank, and Associated Piping.

Request for Preliminary Certification for Tax Credit was made October 1, 1979, and approved October 24, 1979. Construction was initiated on the claimed facility June 1980, completed October 20, 1980, and the facility was placed into operation October 20, 1980.

Facility Cost: $38,268.14 (Accountant's Certification was provided).

The Accountant certified a facility cost of $51,228.90. The company submitted a letter on February 9, 1982, which revised the facility cost to $38,268.14. Two other pumps were purchased under the same appropriation, but were not used in this pollution control project.

3. Evaluation of Application

Prior to installation of the claimed facility, silt from the vegetable washing system flowed to silt sedimentation basins. However, during periods of high flows silt would not settle in the basins and carried over to the waste water treatment plant, causing excessive equipment wear and occasional plant upsets. The new silt removal system pretreats the vegetable wash water prior to flowing to the settling basins. Approximately 50 percent more silt is removed from the system which has resulted in more stable operation of the treatment system. Ore-Ida estimated the system results in an annual savings of $26,600 due to reduced labor and maintenance on the waste water treatment plant. The new system's annual operating expenses total $16,088.09, which results in a net profit of $10,511.91. Ore-Ida estimated the useful life of

this facility to be 5 years. Based on a factor of internal rate of return of 3.640 (facility cost divided by annual cash flow) and utilizing the procedures set forth in Section VI of the Department's Tax Credit Guidance Handbook, one arrives at a rate of return of 11.6 percent. Based on Table I on Page VI-3 of the Handbook the percent of facility cost that is allocable to pollution control is 60 percent or more but less than 80 percent.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 60 percent or more but less than 80 percent.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $38,268.14 with 60 percent or more but less than 80 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1383.

CKA:l
(503) 229-5325
February 18, 1982

WL1410 (1)

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Teledyne Industries, Inc.
Teledyne Wah Chang Albany
Post Office Box 460
Albany, OR 97321

The applicant owns and operates a zirconium, hafnium, tantalum, titanium, and niobium production plant at 1600 Old Salem Road, Albany, Oregon.

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

2. Description of Claimed Facility

The facility described in this application consists of a standby electric generator with an automatic starting and switching system.

Request for Preliminary Certification for Tax Credit was made on February 1, 1979, and approved on April 3, 1979.

Construction was initiated on the claimed facility on October 17, 1979; completed on January 25, 1980; and the facility was placed into operation on January 25, 1980.

Facility Cost: $29,926.00 (Accountant's Certification was provided).

3. Evaluation of Application

The standby generator, which was required by the Department, is diesel powered and is capable of delivering 500 kilowatts of power to maintain the air contaminant collection and scrubbing systems in operation during power outages. This system replaced a previous 200 kilowatt generator that was not adequate to power air pollution control equipment for the pure chlorination and zirconium reduction processes. The previous 200 kilowatt system was not certified as an air pollution control facility.

The claimed facility has been inspected by Department personnel and it was determined that the system is capable of maintaining the air contaminant collection and scrubbing systems on-line during power outages.

The claimed facility was required by the Department for air pollution control and there is no return on the investment in the facility; therefore, 80% or more of the cost of the facility is allocable to pollution control.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

4. Director's Recommendation

Based upon the findings in the summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $29,926 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1411

FASkirvin:ahe
(503) 229-6414
September 23, 1981

Application No. T-1449

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Number One Boardman Station
121 S.W. Salmon St.
Portland, OR 97204

The applicant owns and operates a coal burning electric generating facility at Boardman.

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

2. Description of Claimed Facility

The facility described in this application is a closed recycle system for plant condenser cooling water. The facility consists of dams and a divider dike for the cooling pond. Also involved is an 84 inch plant discharge line, a pond intake structure, a seepage collection system, a reservoir spillway, and a seal structure.

The original Notice of Construction was submitted to the Department on August 25, 1975. Effective September 13, 1975, ORS 468.175 was changed to require the filing of a Request for Preliminary Certification rather than a Notice of Construction. Although a Request for Preliminary Certification was submitted to the Department on November 22, 1976, the Department did not act upon it due to an apparent oversight. Construction was initiated on the claimed facility February 1976, completed August 1979, and the facility was placed in operation August 1979.

Facility Cost: $30,982,808 (Accountant's Certification was provided).

3. Evaluation of Application

The cooling reservoir system for the plant condensers operates on a closed cycle system. Columbia River water is introduced into the pond as make-up water through an intake system. The pond water is pumped through the plant to cool the condensers and the heated water is discharged back to the reservoir for circulation and cooling. Heat is lost to the atmosphere through evaporation, conduction, and radiation. Evaporation and irrigation usage provide a net loss of water from the pond. This system has functioned as designed and has eliminated the need to discharge heated cooling water to the Columbia River.

The Department and its legal counsel have discussed this application and believe that the intent of the law has been satisfied. Although construction started after September 13, 1975, and prior to the submittal of the Request for Preliminary Certification, notice of the project was given to the Department on August 25, 1975, which was in accordance with the law at that time.

4. Summation

a. Facility was constructed under a certificate of approval to construct issued pursuant to ORS 468.175.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80 percent or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $30,982,803 with 80 percent or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1449.

Charles K. Ashbaker:l
(503) 229-5325
March 25, 1982

WL1497

Application No. T-1453

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Willamette Industries
Duraflake Division
3800 First Interstate Tower
Portland, OR 97201

The applicant owns and operates a particleboard plant at Albany, Oregon.

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

2. Description of Claimed Facility

The facility described in this application consists of a 24,750 sq. foot concrete wood shaving storage building and related conveying equipment for transferring the material to and from the building.

Request for Preliminary Certification for Tax Credit was made on November 26, 1980 and approved on December 29, 1980.

Construction was initiated on the claimed facility on February 28, 1981, completed on September 18, 1981, and placed into operation on September 18, 1981.

Facility Cost: $1,616,902.82 (Accountant's Certification was provided).

3. Evaluation of Application

Willamette Industries constructed a new wood shaving storage building with related conveying systems to transport the wood to and from the building. The facility replaced an existing storage building at their Duraflake Division particleboard plant near Albany, which was razed because of the extreme fire and explosion potential.

The escapement of wood dust from the existing structure was a principal source of particulate in the local air shed. The new building design incorporated features to improve containment of fugitive particulate emissions. The new facility is in compliance with all emission limits. The Department deems that a containment structure was necessary for the plant to meet air quality standards.

The Company claimed that 100% of the total actual cost of the building and related conveying systems of $1,616,902.82 should be allocable to pollution control. They later reduced the total claimed cost by $24,275 to account for the disc screen and magnet which they defined as non-pollution control equipment. They contend that the material transfer systems qualify because the building would be useless without a means of filling and retrieving the wood material.

Willamette Industries indicate that the new material transfer systems were necessitated since the building was relocated away from the original storage building site. (It was not practical or economical to construct the new building on the original site and still maintain normal manufacturing production).

The Department views the material belt conveyors, pneumatic conveyors, and basic material stacker inside the building as process equipment rather than pollution control facilities. It can be reasoned that the building would function to contain and prevent wood particulate from escaping regardless whether the transport systems or radial stacker were in place or not.

The covers over the belt conveyors and the height adjustment feature of the radial stacker meet the criteria of substantial purpose for pollution control.

Taking into account the above rationale, the adjusted cost allocable to pollution control is $1,112,482.37. The total cost of the pneumatic transport systems and the re-entry bin were excluded. Thirteen percent of the belt conveyor cost and 11.3% of the radial stacker cost was eligible. Deducted from the certified cost: high pressure material transport at $61,840.56, low pressure material transport at $30,458.79, radial stacker at $135,045.93, belt conveyors at $258,768.00, material re-entry bin at $42,985.75 for a total of $529,099.03. The belt conveyor covers ($33,640.00) and the height adjustment feature of the radial stacker ($15,313.58) were then added in as eligible costs.

There are no significant economic benefits resulting from the pollution control portion of the project. Operating costs of maintenance, utilities and labor are estimated by the Company to be the same as with the original facility. There was no reduction in insurance premiums. Fuel savings as a result of not having to dehydrate the rainfall that would have affected an outside storage was shown to be insignificant. There was no salvage value to the removed equipment and structures.

The economic benefits of the claimed facility results in a return on the investment of less than 1%. Therefore, the percent of adjusted facility cost allocable to pollution control is 80% or more.

In December 1980, the Commission certified a $1,941,253.97 raw material storage structure at Willamette Industries' KorPine Division in Bend at 80% or more. The original structure had been destroyed by fire. The cost of the conveyors was not claimed in the KorPine application.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $1,112,482.37 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1453.

FASkirvin:a
AA1955 (1)
(503) 229-6414
March 16, 1982

Application No. T-1482

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Irinaga Brothers, Inc.
dba/Aloha Car Wash
19165 SW Tualatin Valley Highway
Beaverton, OR 97007

The applicant owns and operates Chevron Service Station at 19165 SW Tualatin Valley Highway, Beaverton, Oregon.

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

2. Description of Claimed Facility

The facility described in this application is the installation of gasoline vapor control equipment in three gasoline storage tanks.

Request for Preliminary Certification for Tax Credit was made on September 17, 1980, and approved on January 7, 1981.

Construction was initiated on the claimed facility on March 24, 1981, completed on March 24, 1981, and the facility was placed into operation on March 24, 1981.

Facility Cost: $692.00 (Invoice was provided).

3. Evaluation of Application

Emco Wheaton coaxial gasoline vapor control systems were installed in three underground storage tanks to meet Department requirements for gasoline vapor control. Since all three tanks were previously filled by submerged fill, there is no reduction in the loss to the applicant of gasoline to vapor. The cost of the claimed facility is 80% or more allocable to pollution control.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $692.00 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1482.

F.A.Skirvin:k
(503) 229-6414
2/17/82
AK638 (2)

Application No. T-1490

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Rosboro Lumber Company
P.O. Box 20
Springfield, OR 97477

The applicant owns and operates a wood products manufacturing complex at Springfield.

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

2. Description of Claimed Facility

The facility described in this application is a veneer dryer stack emission control system consisting of a duct to direct exhaust from three veneer dryers to existing hogged fuel boilers for incineration.

Plans and specifications were reviewed and approved by Lane Regional Air Pollution Authority.

Request for Preliminary Certification for Tax Credit was made on July 2, 1980, and approved on September 11, 1980. Construction was initiated on the claimed facility in August, 1980, completed on December 30, 1980, and the facility was placed into operation on January 5, 1981.

Facility Cost: $278,851 (Accountant's Certification was provided).

3. Evaluation of Application

Rosboro Lumber Company owns and operates a forest products manufacturing complex in Springfield. The complex includes the operation of three veneer dryers.

To achieve compliance with air emission standards of Lane Regional Air Pollution Authority for the veneer dryers, the company elected to incinerate the hydrocarbons emissions in the existing hogged fuel boilers.

Other control techniques were investigated, including wet scrubbers and low temperature drying. Each alternative was discarded for various reasons of cost, waste disposal problems or loss of production.

The veneer dryer emission control system consists principally of a single duct, approximately 900 feet in length, between the three veneer dryers and three hogged fuel boilers. An induced draft fan balances the manifolded air from the dryers to the boiler fire boxes as underfire and overfire air.

Pollution control was the primary purpose for the project. The introduction of heated air to the boilers is believed to result in some fuel savings. The savings is estimated at less than 7% return on investment, therefore, there is no decrease in percent of facility cost allocation.

Lane Regional Air Pollution Authority advises that the facility normally complies with emission standards. They concur with granting tax credit on the facility.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $278,851 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1490.

F.A. Skirvin:a
AA1808(1)
(503) 229-6414
February 8, 1982

Application No. T-1493

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

McCormick & Baxter Creosoting Co.
P. O. Box 3048
Portland, OR 97208

The applicant owns and operates a wood creosoting company at 6900 N. Edgewater Street in Portland.

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

2. Description of Claimed Facility

The facility described in this application is:

1) An acoustical enclosure around the pole peeler.
2) A sound trap to muffle the air intake for the pole dryer.
3) Mufflers for the log handling vehicles.

Request for Preliminary Certification for Tax Credit was made on June 7, 1979, and approved on October 17, 1979.

Construction was initiated on the claimed facility in March, 1979, completed in May, 1981, and the facility was placed into operation in May, 1981.

Facility Cost: $15,370.10.

3. Evaluation of Application

In January, 1979, McCormick & Baxter was found in excess of the DEQ's Noise Control regulations. Over a several year period, various noise controls were designed and installed. Although McCormick & Baxter still exceeds the noise standards, the noise controls did significantly reduce the environmental noise levels. The noise levels, for the pole peeler and pole dryer are probably below the noise standard. The noise levels for the log handling vehicles have been reduced, but still exceed standards.

Since March, 1979, McCormick & Baxter has spent $16,153.19 for the various noise controls. Not all of these costs are eligible for tax credit consideration, since some of the noise controls were installed before June 7, 1979 the day the Preliminary Certified request was received. Between March and June, 1979, a total of $783.09 was spent on installation of several mufflers. Therefore, the amount eligible for tax credit consideration is $15,370.10. One hundred percent of this cost is allocated for environmental noise pollution control.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1977, as required by ORS 468.165(1)(b).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing noise pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 467, and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $15,370.10 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1493.

John Hector:k
(503) 229-6085
2/17/82
NK639 (2)

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Roger De Jager
3292 Wintel Road S.
Jefferson, OR 97352

The applicant owns and operates a dairy farm at Jefferson.

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

2. Description of Claimed Facility

The facility described in this application is a manure control system consisting of:

a. A 2.5 Acre-Foot Earthen Storage Lagoon;
b. A Hydrosieve Side-hill Screen, and;
c. Associated Piping and Pumps.

Request for Preliminary Certification for Tax Credit was made August 1, 1980, and approved August 5, 1980. Construction was initiated on the claimed facility September 1, 1980, completed October 1, 1980, and the facility was placed into operation October 1, 1980.

Facility Cost: $12,850.00 (Accountant's Certification was provided).

3. Evaluation of Application

Prior to installation of the claimed facility, manure would periodically drain from the application fields to Bashaw Creek and nearby ditches. The existing waste storage pond was undersized so manure was often applied to fields even during periods when the soils were saturated. Now all manure is collected and stored until periods when dry weather conditions will prevent any runoff from occurring from the fields. There is no return on investment from this facility.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80 percent or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $12,850.00, with 80 percent or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1498.

CKA:l
(503) 229-5325
March 1, 1982

WL1428

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Robert C. Niehus
3797 Ray Bell Rd. N.E.
St. Paul, OR 97137

The applicant owns and operates a dairy farm at St. Paul.

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

2. Description of Claimed Facility

The facility described in this application is a manure collection and holding facility consisting of:

a. An 8' deep by 32' diameter concrete manure tank;
b. A Mitchell mixing pump;
c. 100' of 8" PVC pipe (from the milking parlor to the tank); and
d. 80' of 4" PVC pipe (from the milk house to the tank).

Request for Preliminary Certification for Tax Credit was made July 31, 1981, and approved August 11, 1981. Construction was initiated on the claimed facility August 31, 1981, completed September 8, 1981, and the facility was placed into operation September 8, 1981.

Facility Cost: $13,516.00 (Accountant's Certification was provided).

3. Evaluation of Application

Prior to installation of the claimed facility, manure would periodically drain from the application fields to adjacent ditches. There were no holding facilities so the manure would have to be applied to the fields even during periods when the soils were saturated. Now all manure and milking wash water are collected and stored in the tank until periods when dry weather conditions will prevent any runoff from occurring from the fields. There is no significant return on investment from this facility.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80 percent or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $13,516.00 with 80 percent or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1499.

CKA:g
WG955 (1)
(503) 229-5325
February 26, 1982

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Tru-Mix Leasing Company
P. O. Box 4430
Medford, OR 97501

The applicant owns and operates a portable asphalt paving plant at 1111 E. Vilas Road, Medford.

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

2. Description of Claimed Facility

The facility described in this application consists of approximately 21,797 square feet of yard paving associated with the new asphalt plant installation.

Request for Preliminary Certification for Tax Credit was made on June 5, 1980, and approved on February 4, 1982.

Construction was initiated on the claimed facility on June 30, 1980, completed in May, 1981, and the facility was placed into operation in May, 1981.

Facility Cost: $11,868.19 (Accountant's Certification was provided).

3. Evaluation of Application

The applicant has paved approximately an additional 21,797 square feet associated with the new asphalt plant. This paving consists of 6,762 square feet of concrete and 15,035 square feet of asphalt and is located in three separate areas. An inspection by the Department revealed that the areas paved are highly travelled areas used by dump trucks as haul roads. The entire area is eligible for tax credit consideration in accordance with the paving project guidelines, based upon the following. The facility is located in a nonattainment particulate AQMA which has a dust control element in the EQC approved attainment strategy and the area paved is heavily travelled. In addition, paving was required by the Department as noted in schedule D, "Special Conditions," of their Air Contaminant Discharge Permit.

The applicant maintains the paved areas by periodic sweeping with a mechanical sweeper and periodic watering.

Prior to paving, these areas were a source of fugitive dust emissions because of equipment operation. The Southwest Regional Office has indicated that a substantial reduction of fugitive emissions has been achieved as a result of the paving project and that they support a tax credit benefit for the applicant.

The company has requested that 95% of the claimed facility cost of $11,868.19, which does not include site preparation, fill or base rock, be allocated to pollution control. They claim that the project was initiated as a result

of the Department in the Air Quality Discharge Permit. Economic benefits estimated by Tru-Mix Leasing Company include reduced equipment maintenance, elimination of regrading, annual addition of rock, and regular sprinkling. These benefits total $4,665.48. Periodic maintenance of the paved areas cost $3,600.00 annually. The annual net savings to the company is $1,065.48. The ratio of the savings realized to the facility cost represents a factor of 11.14. For facilities having a useful life of eight years, a factor of 11.14 indicates less than 1% return on investment. Therefore, in accordance with the guidelines on cost allocation, 80% or more of the facility cost is allocable to pollution control.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).

c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.

d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.

e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $11,868.19 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1501.

FASkirvin:ahe
(503) 229-6414
March 18, 1982

Application No. 1504

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Tektronix Inc.
P.O. Box 500
Beaverton, OR 97077

The applicant owns and operates an electronic equipment manufacturing company at Beaverton, Oregon.

Application was made for tax credit for a hazardous waste pollution control facility.

2. Description of Claimed Facility

The facility described in this application consists of a chemical recycle collection center (Area fencing, curbed concrete area with two sumps, and roof).

Major costs were:

Construction		$69,076.00
Engineering & Miscellaneous materials and labor		12,973.76
	Total:	$82,049.76

Request for Preliminary Certification for Tax Credit was made on May 5, 1980, and approved on May 30, 1980.

Construction was initiated on the claimed facility on June 2, 1980, completed on November 13, 1980, and the facility was placed into operation on November 13, 1980.

Facility Cost: $82,049.76 (Accountant's Certification was provided).

3. Evaluation of Application

Prior to construction of the facility, the company had an inadequate area to store hazardous wastes for future recycling. This necessitated frequent shipments of recyclable wastes to Arlington for disposal. The facilities also limit public access and are constructed to contain any accidental spills.

The following materials are presently being recovered annually:

Flammable Solvents	700 barrels
Oil	90 barrels
Water Soluble Oils	100 barrels
Chlorinated Solvents	10 barrels

This represents a cost savings of $36,000 annually for the facility with a return on investment of 33.3%.

4. Summation

a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

b. As required by ORS 468.165, the facility was under construction on or after October 3, 1979, and

(1) The substantial purpose of the facility is to utilize material that would otherwise be hazardous waste, through the production, processing, or use of materials for their heat content or other forms of energy or materials which have useful chemical or physical properties;

(2) The end product of the utilization is a usable source of power or other item of real economic value;

(3) The end product of the utilization, other than a usable source of power, is competitive with an end product produced in another state; and

(4) The Oregon law regulating solid waste imposes standards at least substantially equivalent to the federal law.

c. The facility is necessary to satisfy the intents and purposes of ORS Chapter 459, and the rules adopted under that chapter.

d. The portion of the facility cost that is properly allocable to pollution control is 100 percent.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $82,049.76 with 100 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1504.

R. L. Brown:o
(503) 229-5157
March 18, 1982

SO857 (1)

Appl T-1097
Cert 1042

State of Oregon
Department of Environmental Quality

REISSUANCE OF POLLUTION CONTROL FACILITY CERTIFICATE

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1. Certificate Issued to:

Butzin Orchard
2166 Mason Road
Hood River, Oregon 97031

The Certificate was issued for an air pollution control facility.

2. Summation

On February 22, 1980, the Environmental Quality issued Pollution Control Facility Certificate 1042 to Butzin Orchard for one Orchard Rite wind machine located at their orchard in Hood River.

By letter of February 15, 1982 (attached) Willis Family, Inc. informed the Department that they had purchased the entire assets of Butzin Orchard and asked that the Certificate be reissued to them.

3. Director's Recommendation

It is recommended that Pollution Control Facility Certificate 1042 be revoked and reissued to Willis Family, Inc. The Certificate to be valid only for the time remaining from the date of first issuance.

CASplettstaszer
229-6484
3/25/82
Attachments

Willis Family, Inc.
2385 Eastside Road
Hood River, Oregon 97031

February 15, 1982

State of Oregon
Department of Environmental Quality
522 Southwest 5th Avenue
Portland, OR 97207

Dear Sir or Madam:

The above named corporation has purchased the entire assets of the Butzin Orchard at 2166 Mason Road, Hood River, Oregon. Included in this sale is an orchard Rite Wind Machine that was issued a pollution control facility certificate #1042 on 2-22-80.

According to the instructions accompanying form 150-102-029 we wish to apply for a new pollution control credit to utilize the remaining credit attributable to this machine.

Please furnish us with the appropriate forms to facilitate this request.

Sincerely yours,

Bob Willis
President

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1042

Date of Issue 2/22/80

Application No. T-1097

POLLUTION CONTROL FACILITY CERTIFICATE

Issued To:	Location of Pollution Control Facility:
Butzin Orchard 2166 Mason Road Hood River, Oregon 97031	2166 Mason Road Hood River, Oregon
As: ☐ Lessee ☒ Owner	

Description of Pollution Control Facility:

One (1) Orchard Rite wind machine, serial no. 13WMWM7

Type of Pollution Control Facility: ☒ Air ☐ Noise ☐ Water ☐ Solid Waste ☐ Hazardous Waste ☐ Used Oil

Date Pollution Control Facility was completed: 5/3/79 Placed into operation: 5/3/79

Actual Cost of Pollution Control Facility: $ 12,536.00

Percent of actual cost properly allocable to pollution control:

80% or more

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of ORS 468.175 and subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.

2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.

3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE - The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed Joe B. Richards

Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on the 22nd day of February, 1980

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: Director

Subject: Agenda Item No. E, April 16, 1982, EQC Meeting

Request for Authorization to Hold a Public Hearing on the Construction Grants Priority Management System and List for FY 83

Background and Problem Statement

Annually the Department must compile a priority list for allocating federal construction grants for municipal sewerage treatment works, based on the next planned allotment of federal funds. This year, the administrative rules for the development and management of the priority list must also be adjusted to better implement the recently enacted Construction Grant Amendments of 1981.

As in the past several years, the state's efforts to define an orderly management of funds for high priority projects is complicated by a number of related federal activities. Within the past six months, many prior planning assumptions were altered by federal regulatory, statutory and budget proposals. Individual project decisions await these outcomes: (1) Congressional actions to appropriate funds for FY 82 and FY 83; (2) EPA's nearly total overhaul of all construction grant program regulations, which are now section-by-section in various stages of revision; (3) EPA policy guidance interpreting new or modified regulations; and (4) EQC action to establish a plan for managing FY 83 funds if appropriations are made.

Optimally, EQC action on the FY 83 priority list would follow the completed activities of the President, Congress, and EPA. However, the EQC's annual action on the construction grants program has seldom, if ever, had the benefit of such earlier decisions. Although this period of rapidly changing federal directions and new or reworked regulations may cause staff recommendations to be tentatively proposed, grant funds and months of valuable construction benefits to communities may be risked if the EQC's public involvement process is delayed until all federal rulemaking and policy guidance is available.

A chronology of recent and expected federal activities and a plan for coordination of the State's FY 83 priority list adoption is set forth as Attachment 1. The practical objective of this schedule is to establish a

workable, flexible framework for FY 83 grants management, which will (1) conform or clarify existing state administrative rule language or procedures, (2) examine new statutory options for fund management by the State, (3) review the need for modification of existing rules and (4) produce a timely FY 83 priority list. It is felt that the proposed schedule will allow for the state's FY 83 priority system and list to be developed consistently with emerging federal policy in most areas. However, it is possible that final decisions in a few areas may have to be reserved until a later date.

The proposed changes to the FY 83 priority list management system are included at this time. Development of the proposed draft FY 83 priority list is scheduled for early May, after the tentative proposed priority system can be reviewed in conjunction with promulgation of pertinent EPA rules in mid-April. Staff will continue to inform the Commission of any changes resulting from reviews as they progress.

Alternatives and Evaluation

The Construction Grant Amendments of 1981 contained a number of significant changes in the overall management of the grant program. Generally the Act established new "reduced grant" participation rules regarding (a) the eligibility of types of projects, (b) the growth or reserve increment included in project capacity, and (c) the elimination of grants for planning and design. Most, but not all, of the changes in (a) and (b) were phased into the program gradually, with the full effects targeted for new projects beginning in FY 85. The elimination of new grants for planning and design, formerly Step 1 and 2 project grants, became effective immediately. The responsibility of potential grantees to meet all federal requirements for planning and design was unchanged.

The tentative proposals to modify the state priority list and management system set out below do not attempt to restate these federally legislated changes nor to fully incorporate existing or proposed federal regulations. Generally, these modifications are intended to clarify or conform particular language used in the state rules, specify a particular choice of decision where options are newly available to state administrators, and include a framework for potential areas of involvement with the state itself as a grantee for portions of the program. Until federal regulations and policy regarding the new law are finalized, the flexibility to be consistent with new federal directions is an objective shared with our intent to provide as consistent a stride as possible between the state's FY 82 priority list and the forthcoming FY 83 list.

The updated administrative rules (Attachment 2) address several major issues. A summary evaluation is provided below.

1. Federal law now eliminates new Step 1 and 2 grants and instead provides for an allowance for planning and design costs to be requested as part of a Step 3 grant. For a limited number of small communities, the allowance can be advanced from funds for that purpose which are awarded

4. Federal law encourages states to assume the direct management of the Construction Grants program through a delegation of authority agreement with the U. S. Environmental Protection Agency. Four percent of the funds authorized by Congress may be used to fund this effort.

   Although Oregon is one of the few remaining states to assume this delegation of authority, the present status of program management is being studied. An authorization for a State Management Assistance reserve fund is established in the event that delegation is assumed. No recommendation is made at this time regarding the use of this fund. If delegation is not assumed, these funds would revert to the state's general allotment for project construction.

   The proposed rule is OAR 340-53-025(6).

5. Proposed federal regulations no longer require a specific procedure to bypass projects on the priority list if they are not ready to proceed. It is proposed to modify the project bypass provision of the existing EQC rules so that projects who are not ready to proceed near the end of the current funding year may be more quickly bypassed and obligations made to projects who are ready. This flexibility is needed in order to prevent the loss of funds which may expire at the end of a current funding year because scheduled projects are not ready.

   The affected rules are OAR 340-53-035(1)(b) and (2)(c).

6. Proposed federal regulations and policy discourage the practice of phasing and/or segmenting new treatment works so that construction occurs over a multiyear period; however, phasing and segmenting is allowed when the federal share of the treatment works would require a disproportionate share of the state's annual allotment relative to other needs or when the construction period would cover three years or more. Various definitions of phasing and segmenting occur in EPA's documents, some of which will require clarification prior to evaluating this portion of proposed federal regulations. Considering these sections of the proposed regulations and others defining the responsibility of the state to set priorities based on water quality and public health considerations, no recommendation to modify existing rule language is made at this time.

Summation

1. The Department must compile and adopt a state priority list for allocating federal construction grants for FY 83, recognizing that federal regulations and funding levels are not yet established. A need for limited modification of the priority list management system is also recognized.

2. The tentative proposed changes to the FY 83 priority list management system are included at this time. The draft FY 83 priority list is

scheduled for May 3. The schedule of events for timely completion of the priority list demonstrates the need for state action concurrent with federal rulemaking and policymaking activity. Some tentative proposals identified at this time may be modified as a result of later federal activity.

3. Modifications to the existing priority management system are identified regarding (a) administration of projects for planning and design; (b) reserve accounts for alternative and innovative technology; (c) reserve accounts for water quality management planning and state management assistance; and (d) project bypass procedures. No modifications were identified for priority rating criteria. Federal policy regarding phasing and segmenting of projects is presently unclear but does not, at this time, appear to greatly affect the priority system.

4. Opportunity for public comment should be made available on the tentative proposed FY 83 priority management system and list. A hearing is scheduled for Thursday June 3, 1982 at 10 a.m. at the DEQ offices, Room 1400, 522 S. W. Fifth Ave., Portland.

Director's Recommendation

Based on the Summation, the Director recommends the following:

1. The Commission authorize a hearing before a hearings officer on the FY 83 priority management system and priority list, to be held on June 3, 1982. All testimony entered into the record by the close of the hearing will be considered by the Commission.

2. The Department inform and update the Commission, as necessary, on new developments regarding this process.

Bill

William H. Young

Attachments: 4

1. Coordination Plan for Adoption of FY 83 Priority System and List.

2. Tentative Draft, Priority List Rules (Division 53).

3. Notice of Public Hearing

4. Statement of Need for Rulemaking

B. J. Smith:l
WL1502
229-5415
March 29, 1982

to the state as the grantee. (The federal regulations regarding the content of planning and design generally are unchanged.)

Proposed changes to the administrative rules modify the amount of funds set aside for this purpose and create a new administration procedure for the state since eligible Step 1 and 2 applicants apply to the state. Since this fund is required by federal law, failure to establish it would result in a reduction to the total state allotment. However, the amount of funds set aside is optional up to 10% of the allotment. Repayment of the advance is presumed to occur at the time of Step 3 grant award.

Only a limited use of this fund is recommended because (1) at best, the timing of Step 3 grants and subsequent repayment can be projected only a year or two in advance, and (2) assuming a state role as grantee and manager of these funds, it increases the cost of administering, accounting, and auditing these funds. There is no special provision for the state's cost recovery for this activity.

Affected rules regarding this issue include OAR 340-53-010(8),(9),(18) and (25); 340-53-025(2),(8); and 340-53-030(2).

2. Federal law now allows states to set aside between 4 and 7-1/2% of the state allotment in order to increase by another 10% the federal share of the projects employing alternative or innovative technology; of this amount, at least 1/2 of 1% must be for innovative technology. For FY 81, 3% of the state's allotment was required to be obligated for this purpose. Since 1979, the state has obligated each year's fund for alternative technology but no project has yet qualified to use the innovative technology fund.

   Both former federal regulations and state management practice have generally awarded these funds on a "first come, first served" basis. However, unfunded applications indicate that about $1 million in backlog requests exist, not considering the demand new projects may make. Presumably, about $1 million may be available in FY 82 if 4% of the allotment was set aside.

   The minimum reserve amount, 4%, is recommended to be set aside. This amount would satisfy nearly all known application requests but possibly will not enable all new eligible projects to immediately receive a 10% incentive increase. Increasing the amount of the alternative and innovative technology increase fund would reduce commensurately the general allotment, which is used to provide 75% grants to projects highest on the priority list.

   The affected rule regarding the issue is OAR 340-53-025(4).

3. Federal law and new regulations restate the program's emphasis on water quality and public health improvements and direct that priority criteria and planning be consistent with that purpose. It remains the state's full responsibility to establish project priorities within that context. Each state's priority system must include criteria for ranking projects which consider (1) the impairment of classified water uses resulting from existing municipal pollutant discharges; and (2) the extent of surface or groundwater use restoration or public health improvement resulting from the reduction in pollution. The priority system should also give high priority to projects which will result in significant improvement in priority water quality areas as defined by the state.

   The most significant priority rating factor in the existing priority criteria is the Project Letter Class. This classification satisfies considerations (1) and (2) above. The five Letter Class categories A-E are based on the concepts of protection of beneficial water uses and public health considerations. The classes are further delineated by the extent to which project implementation is expected to result in improvements, considering the frequency and duration of documented problems. The degree of documentation for problems is also critical in prioritizing lower ranking projects.

   Oregon's Water Quality Management Plan classifies streams and stream segments as water quality limiting. The relative priority for improving quality in these streams and stream reaches is reflected as the Stream Segment Criterion in the grants priority system.

   Since the existing priority criteria are targeted to select projects based primarily on their effects on beneficial use or public health, changes in treatment standards for municipalities with ocean discharges, lagoons, or emphasis on the treatment of combined sewer overflows can be accommodated within the present structure.

   The new federal law also requires that from $100,000 to 1% of the state's funds be reserved for water quality management planning, with the state as the lead applicant for these funds. Activities by areawide planning agencies are also authorized under this provision.

   However, regulations identifying the major output of these activities have not been released. The authorization to establish the appropriate reserve fund at $100,000 is included at this time, pending more definitive federal policy direction. Only the minimum reserve amount is recommended to be set aside since the amount of this reserve reduces commensurately the general allotment funds which are used to provide 75 percent construction funds to projects high on the priority list.

   The affected rules regarding these issues are OAR 340-53-015(2) and the associated Table A; and 340-53-025(5).

ATTACHMENT 1

COORDINATION PLAN FOR ADOPTION OF FY 83 PRIORITY SYSTEM AND LIST
(Including Chronology of Related Events)

Chronology:

October 1, 1981.	Oregon entered FY 82 with about $7 million in grant funds carried forward from FY 81. These funds are generally expected to fund increased costs to complete existing projects. The FY 81 priority list was in effect until December 31, 1981 but no funds were available for new projects.
November 3, 1981.	EPA proposed new basic program regulations as part of the "Regulatory Reform" effort. EPA's effort was concurrent with Congress' consideration of new reform legislation.
December 29, 1981.	The President signed the Construction Grant Amendments of 1981, which included a reauthorization of the program for FY 82-85. This was a substantive bill reached by House and Senate conference, modifying the grants program significantly. It superceded or conflicted with many of the proposed rules issued by EPA on November 3.
January 25, 1982.	EPA approved the FY 82 priority list. No projects were scheduled to proceed because of the lack of FY 82 appropriations.
January - March 1982.	EPA produced drafts of new program regulations for all areas, including (a) basic regulations; (b) procurement; (c) public participation; (d) delegation of EPA's management to the states; and (e) water quality management planning. The unavailability of some rules or policies and EPA's limited circulation of draft rules and quick review turnarounds hindered comprehensive analysis of the rules.
February - March 1982.	The House of Representatives initiated a Supplemental FY 82 Appropriations Bill for $2.4 billion. However, lack of a consensus between key Committee Chairmen has stayed actions to bring the measure up for a floor vote. Before a House vote, the House Rules Committee would have to agree to amend the current budget authorization level which would add to the projected federal budget deficit.
March 2, 1982.	EPA published proposed regulations governing procurement.

Planned Events:

April 9, 1982.	EPA is expected to publish new basic programs regulations, including those for priority list development. Some of the rules will be effective immediately while others are proposed for comment. Proposed rules governing state program management are also expected. (Promulgation dates for water quality management planning and public participation rules are not known at this time.)
April 16, 1982.	DEQ requests that the EQC authorize a June 1982 public hearing to consider the adoption of the FY 83 priority system and list.
April 19, 1982.	DEQ mails Notice of Public Hearing to interested parties.
May 3, 1982.	DEQ distributes the FY 83 priority system and list in advance of hearing.
May 15, 1982.	DEQ publishes Notice of Public Hearing in Secretary of State Bulletin.
May 15, 1982.	EPA requires submittal of the draft FY 83 priority list.
June 3, 1982.	Public Hearing on FY 83 priority system and list.
July 1, 1982.	EPA finalizes portions of the basic program rules which were published earlier as proposed.
July 16, 1982.	DEQ submits staff report to EQC for action.
August 15, 1982.	EPA requires the submittal of the final FY 83 priority list for approval.

B.J. Smith:l
WL1502.A
3/29/82

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) "Advance" means an advance of funds for a Step 1 or Step 2 project. The advance is equal to the estimated allowance which is expected to be included in a future Step 3 grant award.

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

(10) [(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.

(11) [(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.

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

(13) [12)]"Fundable portion of the list" means those projects on the priority list which are planned for a 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.

(14) [(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.

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

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

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

(18) [(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. These costs may include an estimated allowance for a Step 1 and/ or Step 2 project.

(19) [(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.

(20) [(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.

(21) [(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.

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

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

(24) [(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.

(25) "Small community" means, for the purposes of an advance of allowance for Step 1 or Step 2, a municipality having less than 25,000 population.

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 li

(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]

(a) [(b)] Design (Step 2) [or] and construction [(Step 3)] of complete treatment works, [or] (Step 2 plus 3), or

(b) [(c) Design or] Construction of one or more complete waste treatment systems. [treatment works components,] or

(c) Construction of one or more treatment works components.

(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)] 340-53-010(9) 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.]

(8) [(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.

(9) [(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.] estimated federal share.

(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 [is that 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] as 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] grant advances of up to ten (10) percent[.] but not to exceed the amount estimated to provide advances for eligible small communities projected to apply for a Step 3 or Step 2 + 3 grant in the current funding year and one funding year thereafter.

(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] of 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] of four (4) percent.

(5) Reserve for water quality management planning of $100,000.

(6) Reserve for state management assistance of up to 4 percent of the total funds authorized for the state's allotment.

(7) [(5)]The balance of the state's allocation will be the general allotment.

(8) [(6)]The Director may at his discretion release excess [transfer] funds from the Step 1 and 2 grant advance reserve [to the following reserves:] for the purpose of:

(a) [The reserve for] Grant increases or

(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.]

(2) [(3)] Projects to be funded from the Step 1 and 2 grant advance reserve will be selected based on their priority point scores and whether they are projected to apply for Step 3 or Step 2 + 3 grant in the current funding year or one funding year thereafter. [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.]

(3) [(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[.] <u>provided that such hearing can be arranged before the end of the current funding year.</u>

(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[.] <u>, provided that such hearing can be arranged before the end of the current funding year.</u>

(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.] However, 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 1
(340-53-015)

CONSTRUCTION GRANTS PRIORITY CRITERIA

PROJECT CLASS

Letter Code	Description
A.	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. In addition: 1. The EQC by rule OAR 340-44-005 to 44-040, 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.
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).

Letter Code	Description
	Documentation required includes: Actual written documentation of the applicable guideline, standard, permit condition, or other regulatory requirement.
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. Recognization 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. 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.

Points	Description
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 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. 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:

$$\text{Stream Segment} = 100 - 2(BR) - \frac{1}{n}(SR)(50)$$

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

Basin	1978 Population	No. of Stream Segments	Basin Rank
Willamette	1,672,000	23	1
Rogue	160,100	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

Segment	Segment Rank	Points
No. 1, Willamette Basin		
Tualatin	1	95.73
Willamette (River Mile)	2	93.45
Willamette (River Mile 84-186)	3	91.10
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
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

Segment	Segment Rank	Points
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
Klaskanine River	2	82.44
Wilson River (River Mile 0-7)	3	79.88
Trask River (River Mile 0-6)	4	76.88
Siletz 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
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

Segment	Segment Rank	Points
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
No. 13, Powder Basin		
Snake River (Powder Basin)	1	61.50
Powder River	2	49.00
Burnt River	3	36.50
Remaining Powder Basin Streams	4	24.00
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:

Points = 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

Description	Points
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

ATTACHMENT 3

NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT:

Development of the FY 83 Construction Grants Priority System and Priority List.

The Department of Environmental Quality has scheduled a public hearing for Thursday, June 3, 1982 to receive testimony regarding the construction grants priority system and list for FY 83 and beyond. The hearing will be held at 10 a.m. at the DEQ Offices, Room 1400, 522 S. W. Fifth Avenue, Portland.

WHAT IS DEQ PROPOSING?

The DEQ is proposing the adoption of the FY 83 Priority List for Sewerage Works Construction Grants and changes to the priority system used to manage available funds. The list identifies the priority point scores and relative rankings of projects or project segments potentially eligible for federal construction grants. According to federal regulations, the list should contain an identification of the "fundable list," that is, those projects expected to receive funds during fiscal year 1983 and the "planning list," those projects which may expect assistance during future years. Both the "fundable list" and the "planning list" are based on assumed levels of federal appropriations, which may or may not actually become available. Minor changes are also proposed to the administrative rules governing the criteria and management of the priority list, OAR Chapter 340, Division 53, which were adopted by the Environmental Quality Commission on September 19, 1980. These modifications are necessary to update various aspects of the priority management system in accordance with the recently enacted federal law, the Municipal Construction Grants Amendments of 1981. No changes in the priority criteria used to establish priority ratings are proposed.

HOW MUCH FEDERAL FUNDING IS EXPECTED DURING FY 83?

On March 10, 1981, the President submitted his FY 82 budget to Congress. The recommendation for EPA's construction grants program was zero funding for FY 82. However, the President has stated that he would support a national appropriation of $2.4 billion if substantial reforms in the program were enacted by Congress. On December 29, 1981, the President signed reform legislation, the Municipal Construction Grants Amendments of 1981. Congress is presently considering a $2.4 billion supplemental appropriation for FY 82. If grant funds are appropriated for FY 82, some of the projects listed on the FY 83 list will be scheduled and target certification dates adjusted to use the FY 82 funds.

For FY 83, the President's budget proposal contains a $2.4 billion request. However, Oregon's FY 83 share of the national appropriation will decrease from prior years.

WHO IS AFFECTED BY THIS PROPOSAL?

Cities, counties and special districts seeking US EPA grants for sewerage projects are directly affected. Residents or industries expected to be served by municipal sewerage systems may also be affected.

DOES THE PROPOSAL AFFECT LOCAL LAND USE PROGRAMS?

The priority list management rules set forth a framework for distribution of a limited amount of federal funds to assist in financing sewerage system improvements for selected, high priority communities. Priorities are based on the elimination of public health hazards, and surface water and groundwater quality problems. These rules do not directly affect the development of local land use programs.

However, the Air, Water and Land Resources Quality Goal element of local land use plans should take into account federal (Environmental Protection Agency) funding as an implementation tool for water quality enhancement only where a realistic potential and high priority for funding is consistent with this rule. Alternative plans for implementation or timing of sewerage system capital improvements should be defined in the local land use programs of communities who do not have a high priority and realistic potential for federal funds.

While the Public Facilities and Services Goal element will reflect all needed sewerage improvement needs, both current and future, and the timing of facilities construction to address these needs, this element of local plans should also consider the relative priorities, eligibility, and recent projections for receipt of grant funds to meet these needs. Where key facilities are unlikely to receive grants at all or where the timely, orderly or efficient arrangement of capital facilities cannot be assured with grant funds, adequate alternative financial planning must be conducted.

HOW TO PROVIDE YOUR INPUT OR OBTAIN INFORMATION

The proposed Priority List and the draft rules and rule modification Statement will be mailed to interested parties about May 3, 1982. Written comments maybe submitted to the Construction Grants Unit, Box 1760, Portland, Oregon, prior to 5 pm on June 3, 1982. Oral or written testimony will be accepted during the public hearing.

ATTACHMENT 4

AGENDA ITEM NO. E., APRIL 16, 1982, EQC MEETING

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended actions to consider revisions to OAR Chapter 340, Division 53 rules.

(1) Legal Authority

ORS 468.020 authorizes the Environmental Quality Commission to adopt rules and standards in accordance with ORS Chapter 183.

(2) Need for the Rule

These modifications are necessary to bring existing administrative rules into conformance with the recently enacted federal Municipal Construction Grant Amendments of 1981, PL 97-117, and draft proposed rules of the U. S. Environmental Protection Agency which implement the law.

(3) Principal Documents Relied Upon in This Rulemaking

(a) Public Law 97-117
(b) 40 CFR Parts 25 and 35
(c) OAR 340 Division 53
(d) OAR 340 Division 41

(4) Fiscal and Economic Impact of Rulemaking

One fiscal impact of this rulemaking is upon municipalities and special districts seeking financial assistance for sewerage projects. The rules affect the distribution of these funds. In communities that receive federal grants, small businesses will benefit because they will pay less to improve or develop sewerage systems. However, since few federal grant dollars are expected to be available to assist communities seeking them, the majority of projects will not receive assistance and will presumably provide the cost of capital improvements through locally-derived revenues. Communities will presumably develop individual local financing plans for these improvements by passing these costs on to potential or actual users of the sewerage system such as residential, industrial and commercial users. No direct adverse economic impact on small businesses is expected.

These proposed rules will also have a fiscal impact on the Department of Environmental Quality. The rules enable the Department to seek funding from EPA for the purpose of administering advance funds for the development of selected facilities plans and detailed design plans by local communities and for the development of water quality management information by areawide planning agencies, thus incurring minor administrative costs. In addition, the rules enable the Department to apply for funds for water quality management planning and direct management of the grants program, which may provide revenue to the Department.

WG1039

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: Director

Subject: Agenda Item No. F , April 16, 1982, EQC Meeting

Request For Authorization To Hold A Public Hearing On Proposed Housekeeping Amendments To The Motor Vehicle Emission Control Inspection Test Criteria, Methods and Standards OAR 340-24-300 through 24-350

Background and Problem Statement

At the Environmental Quality Commission Meeting of July 17, 1981 amendments to OAR 340-24-300 through 24-350 were approved. These amendments revised the inspection criteria, simplified the standards format and established a more sophisticated test format for 1981 and newer light-duty vehicles.

As part of the program's effort to keep its operating rules current, there has been a traditional yearly review of those operating rules. This review also allows for formal public comment on the program's rules. This year's staff review is complete. Because of the extensive changes made during last year's review, only minor housekeeping items are being proposed. These proposed items include modifications to the definition section, and to the test method and criteria sections.

At the time of the annual public hearing, the Department has traditionally solicited public comment on all aspects of the rules governing the inspection program. This forum provides an opportunity for the public to directly comment and suggest alternatives on other aspects of the rules that may not have been addressed by the staff. However, because of the extensive rule modifications during this last year and the stabilization of national standards, the need for a thorough examination of the rules annually may no longer exist. After this year, the staff proposes to schedule rules revision proposals on a "need to" rather than on an "annual" basis.

June 2 has been tentatively selected for the date of the public hearing. A copy of the proposed Public Notice, Statement of Need and Fiscal Impact Statement are attached. The proposed rule modifications are attached.

Final scheduling and publication of notice will occur if approved by the Commission.

Alternatives and Evaluations

The following rule modifications are proposed. (OAR 340-24-305(27)) Currently the inspection program rules define the term "noncomplying imported vehicle". This term applied to 1968 through 1971 model year motor vehicles. Recently the USEPA and Customs have made several policy changes which ease the regulatory requirements on private citizens wishing to import their own vehicles. In response to these changes, the program staff has developed internal procedures to allow a vehicle, which has cleared U.S. Customs and is dealing with the various federal requirements, to be processed through our inspection program requirements concurrently with the federal activities. With this procedure in place, the above definition is unnecessary.

(OAR 340-24-310(9)) The staff is proposing to increase the duration of the raised rpm portion of the idle test. This was discussed during last year's review and partially adopted. Some of the current design of emission control systems have sensors and by-passes built into them which deactivate various elements of the air pollution control systems during extended idling conditions. By extending the raised rpm portion of the test, these sensors are reset and the vehicle's proper operating mode can be evaluated, thus providing for increased test uniformity.

(OAR 340-24-320(6) and 325(6)). This is the engine change policy. Since its adoption in 1979, there has been little problem in this area. The most significant problems occur when older vehicles have had newer engines installed. As the current rules exempt pre-1970 vehicles from the underhood inspection, it is proposed to amend the engine change policy so that even if a pre-1970 vehicle that has had a newer engine system installed, it will remain exempt from the anti-tampering portion of the inspection.

Summation

The Commission is being asked to authorize a public hearing to consider testimony on the proposed changes to the vehicle inspection program rules. The staff proposals make certain housekeeping modifications to the definitions and test procedure and incorporate a clarification on the Department's engine change policy. Additionally, this public hearing provides an opportunity for other areas not addressed by the staff to be raised.

Director's Recommendation

Based upon the Summation, it is recommended that the public hearing be authorized.

Bill

William H. Young

VAD186.3 (1)
Attachments: Proposed Public Notice
Statement of Need and Fiscal Impact
Proposed Rule Changes OAR 340-24-300 through 24-350
W.R. Jasper:a
229-5081
March 22, 1982

VICTOR ATIYEH
GOVERNOR

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

Prepared: 3/17/82
Hearing Date: 6/2/82

PROPOSED
NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT:

Proposed modifications to the Motor Vehicle Inspection Control Program Test Criteria Methods and Standards, OAR Chapter 340, Section 24-300 through 24-350 for the Motor Vehicle Inspection Program operating in the Portland metropolitan area.

The Department of Environmental Quality is proposing modifications to the current inspection program rules. The proposed modifications to the regulations include definition and criteria modifications affecting the inspection program test procedures.

WHAT IS THE DEQ PROPOSING:

Interested parties should request a copy of the complete proposed rule package. Some highlights are:

1. Housekeeping rule modifications in the definition section affecting 1968 through 1971 imported vehicles.

2. Housekeeping rule modifications in the test criteria section extending the raised rpm portion of the test.

3. A change in the engine exchange section for pre-1970 vehicles to allow more flexibility while maintaining good emission control requirements.

WHO IS AFFECTED BY THIS PROPOSAL:

Motor vehicle owners and operators and people engaged in the business of repairing motor vehicles in the Portland metropolitan area will be affected by the proposal.

HOW-TO-PROVIDE-YOUR-INFOMATION:

Written comments should be sent to the Department of Environmental Quality, Vehicle Inspection Program, P.O. Box 1760, Portland, Oregon 97207 and should be received by 5:00 p.m. June 4, 1982.

Oral and written comments may be offered at the following public hearing:

City	Time	Date	Location
Portland	7:30 p.m.	June 2, 1982	Room 707 State Office Bldg. 1400 SW 5th 522 S.W. 5th Avenue Portland, Oregon 97201

WHERE TO OBTAIN ADDITIONAL INFORMATION:

Copies of the proposed rules may be obtained from:

Mr. William Jasper
DEQ Vehicle Inspection Program
522 S.W. 5th
P.O. Box 1760
Portland, Oregon 97207
Telephone: (503) 229-6235

LEGAL REFERENCES FOR THIS PROPOSAL:

This proposal amends OAR 340-24-300 through 24-350. This rule is proposed under the authority of ORS 468.370.

This proposal does not affect land use as defined in the Department's Coordination Program with the Department of Land Conservation and Development.

FURTHER PROCEEDINGS:

After the public hearing the Environmental Quality Commission may adopt the rule identical to the proposed rules, adopt a modified rule on the same subject matter, or decline to act. The adopted regulations may be submitted to the Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come in August as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need and Financial Impact Statement are attached to this notice.

WPJ:a
VAD189.8 (1)

PROPOSED
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

Legal authority for this action is ORS 468.370 and ORS 183.341.

Need for Rule

The proposed amendments are needed to update the inspection program criteria, to reflect changes in definitions and inspection program protocol.

Principal Documents Relied Upon

The existing rules, the automobile and motor vehicle manufacturer's shop manuals and service manuals have been relied upon.

Fiscal and Economic Impacts

Estimated fiscal impacts are that some motorists will experience savings. There should be no significant adverse economic impact on small businesses. Some small businesses will continue to economically benefit from the Department's continued operation of the inspection program.

VAD189.8S (1)

Motor Vehicle Emission Control Inspection
Test Criteria, Methods, and Standards

Scope

340-24-300 Pursuant to ORS 468.360 to 468.405, 481.190 to 481.200, and 483.800 to 483.825, the following rules establish the criteria, methods, and standards for inspecting motor vehicles, excluding motorcycles, to determine eligibility for obtaining a Certificate of Compliance or inspection.

Stat. Auth.: ORS Ch. 468
Hist: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 139, f. 6-30-77 ef. 7-1-77

Definitions

340-24-305 As used in these rules unless otherwise required by context:

(1) "Carbon dioxide" means a compound consisting of the chemical formula (CO_2).

(2) "Carbon monoxide" means a compound consisting of the chemical formula (CO).

(3) "Certificate of Compliance" means a certification issued by a vehicle emission inspector that the vehicle identified on the certificate is equipped with the required functioning motor vehicle pollution control systems and otherwise complies with the emission control criteria, standards, and rules of the Commission.

(4) "Certificate of inspection" means a certification issued by a vehicle emission inspector and affixed to a vehicle by the inspector to identify the vehicle as being equipped with the required functioning motor vehicle pollution control systems and as otherwise complying with the emission control criteria, standards, and rules of the Commission.

(5) "Commission" means the Environmental Quality Commission.

(6) "Crankcase emissions" means substances emitted directly to the atmosphere from any opening leading to the crankcase of a motor vehicle engine.

(7) "Department" means the Department of Environmental Quality.

(8) "Diesel motor vehicle" means a motor vehicle powered by a compression-ignition internal combustion engine.

(9) "Director" means the director of the Department.

(10) "Electric vehicle" means a motor vehicle which uses a propulsive unit powered exclusively by electricity.

(11) "Exhaust emissions" means substances emitted into the atmosphere from any opening downstream from the exhaust ports of a motor vehicle engine.

(12) "Factory-installed motor vehicle pollution control system" means a motor vehicle pollution control system installed by the vehicle or engine manufacturer to comply with United States motor vehicle emission control laws and regulations.

(13) "Gas analytical system" means a device which senses the amount of contaminants in the exhaust emissions of a motor vehicle, and which has been issued a license by the Department pursuant to rule 340-24-350 of these regulations and ORS 468.390.

(14) "Gaseous fuel" means, but is not limited to, liquefied petroleum gases and natural gases in liquefied or gaseous forms.

(15) "Gasoline motor vehicle" means a motor vehicle powered by a spark-ignition internal combustion engine.

(16) "Heavy duty motor vehicle" means a motor vehicle having a combined manufacturer vehicle and maximum load rating to be carried thereon of more than 3855 kilograms (8500 pounds).

(17) "Hydrocarbon gases" means a class of chemical compounds consisting of hydrogen and carbon.

(18) "Idle speed" means the unloaded engine speed when accelerator pedal is fully released.

(19) "In-use motor vehicle" means any motor vehicle which is not a new motor vehicle.

(20) "Light duty motor vehicle" means a motor vehicle having a combined manufacturer vehicle and maximum load rating to be carried thereon of not more than 3855 kilograms (8500 pounds).

(21) "Model year" means the annual production period of new motor vehicles or new motor vehicle engines designated by the calendar year in which such period ends. If the manufacturer does not designate a production period, the year with respect to such vehicles or engines shall mean the 12 month period beginning January of the year in which production thereof begins.

(22) "Motorcycle" means any motor vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground and having a mass of 680 kilograms (1500 pounds) or less with manufacturer recommended fluids and nominal fuel capacity included.

(23) "Motor vehicle" means any self-propelled vehicle used for transporting persons or commodities on public roads.

(24) "Motor vehicle fleet operation" means ownership by any person of 100 or more Oregon registered, in-use, motor vehicles, excluding those vehicles held primarily for the purposes of resale.

(25) "Motor vehicle pollution control system" means equipment designed for installation on a motor vehicle for the purpose of reducing the pollutants emitted from the vehicle, or a system or engine adjustment or modification which causes a reduction of pollutants emitted from the vehicle, or a system or device which inhibits the introduction of fuels which can adversely effect the overall motor vehicle pollution control system.

(26) "New motor vehicle" means a motor vehicle whose equitable or legal title has never been transferred to a person who in good faith purchases the motor vehicle for purposes other than resale.

[(27) "Non-complying imported vehicle" means a motor vehicle of model years 1968 through 1971 which was originally sold new outside of the United States and was imported into the United States as an in-use vehicle prior to February 1, 1972, or a motor vehicle owned by a foreign national which has entered the United States in compliance with federal regulations.]

(27) [(28)] "Owner" means the person having all the incidents of ownership in a vehicle or where the incidents of ownership are in different persons, the person, other than a security interest holder or lessor, entitled to the possession of a vehicle under a security agreement, or a lease for a term of 10 or more successive days.

(28) [(29)] "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.

(29) [30)] "PPM" means parts per million by volume.

(30) [31)] "Public roads" means any street, alley, road, highway, freeway, thoroughfare, or section thereof in this state used by the public or dedicated or appropriated to public use.

(31) [(32)] "RPM" means engine crankshaft revolutions per minute.

(32) [(33)] "Two-stroke cycle engine" means an engine in which combustion occurs, within any given cylinder, once each crankshaft revolution.

(33) [(34)] "Vehicle emission inspector" means any person possessing a current and valid license by the Department pursuant to rule 340-25-340 of these regulations and ORS 468.390.

Stat. Auth.: ORS Ch. 468
Hist: DEQ 89, f. 4-22-75, ef. 5-25-75; DEQ 139, f. 6-30-77, ef. 7-1-77; DEQ 9-1978, f. & ef. 7-7-78; DEQ 22-1979, f. & ef. 7-5-79.

Publicly Owned Vehicles Testing Requirements

340-24-306 (1) All motor vehicles registered as government-owned vehicles under ORS 481.125 which are required to be certified annually pursuant to ORS 481.190 shall, as means of that certification, obtain a Certificate of Compliance.

(2) Any motor vehicle which is to be registered under ORS 481.125, but is not a new motor vehicle, shall obtain a Certificate of Compliance prior to that registration as so required by ORS 481.190.

(3) For the purposes of providing a staggered certification schedule for vehicles registered as government-owned vehicles under ORS 481.125, such schedule shall be on the basis of the final numerical digit contained on the vehicle license plate. Such certification shall be completed by the last day of the month as provided below (Last Digit and Month, respectively):

(a) 1--------January;
(b) 2--------February;
(c) 3--------March;
(d) 4--------April;
(e) 5--------May;
(f) 6--------June;
(g) 7--------July;
(h) 8--------August;
(i) 9--------September;
(j) 0--------October.

Stat. Auth.: ORS Ch. 468
Hist: DEQ 3-1978, f. 3-10-78, ef. 4-1-78.

Motor Vehicle Inspection Program Fee Schedule

340-24-307 The following is the fee schedule for Certificates of Compliance, and licenses issued by the Department of Environmental Quality, Vehicle Inspection Program.

Certificate of Compliance $7.00
ISSUED BY DEPARTMENT

Certificate of Compliance.....$3.00
ISSUED BY LICENSED MOTOR VEHICLE FLEET OPERATION

MOTOR VEHICLE FLEET OPERATION	initial	$5.00
	annual renewal	$1.00
FLEET OPERATION VEHICLE EMISSION INSPECTOR -	initial	$5.00
	annual renewal	$1.00
EXHAUST GAS ANALYZER SYSTEM	initial	$5.00
	annual renewal	$1.00

Light Duty Motor Vehicle Emission Control Test Method

340-24-310 (1) The vehicle emission inspector is to insure that the gas analytical system is properly calibrated prior to initiating a vehicle test.

(2) The Department approved vehicle information data form is to be completed at the time of the motor vehicle being inspected.

(3) Vehicles having coolant, oil, or fuel leaks or any other such defect that is unsafe to allow the emission test to be conducted shall be rejected from the testing area. The emission test shall not be conducted until the defects are eliminated.

(4) The vehicle is to be in neutral gear with the hand or parking brake engaged.

(5) All vehicle accessories are to be turned off.

(6) An inspection is to be made to insure that the motor vehicle is equipped with the required functioning motor vehicle pollution control system in accordance with the criteria of Section 340-24-320(3). Vehicles not meeting this criteria shall be rejected from the testing area without an emission test. A report shall be supplied to the driver indicating the reason(s) for rejection.

(7) With the engine operating at idle speed, the sampling probe of the gas analytical system is to be inserted into the engine exhaust outlet.

(8) The steady state levels of the gases measured at idle speed by the gas analytical system shall be recorded. Except for diesel vehicles, the idle speed at which the gas measurements were made shall also be recorded.

(9) Except for diesel vehicles, the engine is to be accelerated with no external loading applied, to a speed of between 2,200 RPM and 2,700 RPM. The engine speed is to be maintained at a steady speed within this speed range for a [4 to 8] <u>10 to 15</u> second period and then returned to an idle speed condition. In the case of a diesel vehicle, the engine is to be accelerated to an above idle speed. The engine speed is to be maintained at a steady above idle speed for a 10 to 15 second period and then returned to an idle speed condition. The values measured by the gas analytical system at the raised rpm speed shall be recorded.

(10) The steady state levels of the gases measured at idle speed by the gas analytical system shall be recorded. Except for diesel vehicles, the idle speed at which the gas measurements were made shall also be recorded.

(11) If the vehicle is equipped with a multiple exhaust system, then steps (7) through (10) are to be repeated on the other exhaust outlet(s). The readings from the exhaust outlets are to be averaged into one reading for each gas measured for comparison to the standards of rule 340-24-330.

(12) If the vehicle is capable of being operated with both gasoline and gaseous fuels, then steps (7) through (10) are to be repeated so that emission test results are obtained for both fuels.

(13) If it is ascertained that the vehicles may be emitting noise in excess of the noise standards adopted pursuant to ORS 467.030, then a noise measurement is to be conducted in accordance with the test procedures adopted by the Commission or to standard methods approved in writing by the Department.

(14) If it is determined that the vehicle complies with the criteria of rule 340-24-320 and the standards of rule 340-24-330, then, following receipt of the required fees, the vehicle emission inspector shall issue the required certificates of compliance and inspection.

(15) The inspector shall affix any certificate of inspection issued to the lower left-hand side (normally the driver side) of the front windshield, being careful not to obscure the vehicle identification number nor to obstruct driver vision.

(16) No certificate of compliance or inspection shall be issued unless the vehicle complies with all requirements of these rules and those applicable provisions of ORS 468.360 to 468.405, 481.190 to 481.200, and 483.800 to 483.825.

Stat. Auth.: ORS Ch. 468
Hist: DEQ 89, f. 4-22-75, ef. 5-25-75, DEQ 139, f. 6-30-77, ef. 7-1-77

Heavy Duty Gasoline Motor Vehicle Emission Control Test Method

340-24-315 (1) The vehicle emission inspector is to insure that the gas analytical system is properly calibrated prior to initiating a vehicle test.

(2) The Department approved vehicle information data form is to be completed [prior to] <u>at the time of</u> the motor vehicle being inspected.

(3) The vehicle is to be in neutral gear if equipped with a manual transmission, or in "park" position if equipped with an automatic transmission.

(4) All vehicle accessories are to be turned off.

(5) An inspection is to be made to insure that the motor vehicle is equipped with the required functioning motor vehicle pollution control system in accordance with the criteria of rule 340-24-325.

(6) With the engine operating at idle speed, the sampling probe of the gas analytical system is to be inserted into the engine exhaust outlet.

(7) The engine is to be accelerated, with no external loading applied, to a speed of between 2200 RPM and 2700 RPM. The engine speed is to be maintained at a constant speed within this speed range for a sufficient time to achieve a steady-state condition whereupon the steady-state levels of the gases measured by the gas analytical system shall be recorded on the Department approved vehicle information form. The engine speed shall then be returned to an idle speed condition.

(8) The steady-state levels of the gases measured at idle speed by the gas analytical system shall be recorded on the Department approved vehicle information form. The idle speed at which the gas measurements were made shall also be recorded.

(9) If the vehicle is equipped with a multiple exhaust system, then steps (6) through (8) are to be repeated on the other exhaust outlet(s). The readings from the exhaust outlets are to be averaged to determine a single reading for each gas measured in each step (7) and (8).

(10) The reading from the exhaust outlet, or the average reading from the exhaust outlets obtained in each step (7) and (8) are to be compared to the standards of rule 340-24-335.

(11) If the vehicle is capable of being operated with both gasoline and gaseous fuels, then steps (6) through (8) are to be repeated so that emission test results are obtained for both fuels.

(12) If it is ascertained that the motor vehicle may be emitting noise in excess of the noise standards adopted pursuant to ORS 467.030, then a noise measurement is to be conducted in accordance with the test procedures adopted by the Commission or to standard methods approved in writing by the Department.

(13) If it is determined that the motor vehicle complies with the criteria of rule 340-24-325 and the standards of rule 340-24-335, then, following receipt of the required fees, the vehicle emission inspector shall issue the required certificates of compliance and inspection.

(14) The inspector shall affix any certificate of inspection issued to the lower left-hand side (normally the driver side) of the front windshield, being careful not to obscure the vehicle identification number nor to obstruct driver vision.

(15) No certificate of compliance or inspection shall be issued unless the vehicle complies with all requirements of these rules and those applicable provisions of ORS 468.360 to 468.405, 481.190 to 481.200, and 483.800 to 483.825.

(16) Any motor vehicle registered on less than an annual basis pursuant to ORS 481.205(2) need not pass more than an annual inspection to assure compliance with ORS 481.190. Such vehicles shall be issued a Certificate of Compliance in a form provided by the Department stating that the vehicle passed inspection by the Department on a certain date and was in compliance with the standards of the Commission, and having no information to the contrary, presumes the continuance of such compliance at the date of the issuance of the Certificate through four consecutive quarterly periods.

Stat. Auth.: ORS Ch. 468
Hist: DEQ 136, f. 6-10-77, ef. 7-1-77

Light Duty Motor Vehicle Emission Control Test Criteria

340-24-320 (1) No vehicle emission control test shall be considered valid if the vehicle exhaust system leaks in such a manner as to dilute the exhaust gas being sampled by the gas analytical system. For the purpose of emission control tests conducted at state facilities, except for diesel vehicles, tests will not be considered valid if the exhaust gas is diluted to such an extent that the sum of the carbon monoxide and carbon dioxide concentrations recorded for the idle speed reading from an exhaust outlet is 8 percent or less, and on 1975 and newer vehicles with air injection systems 7 percent or less.

(2) No vehicle emission control test shall be considered valid if the engine idle speed either exceeds the manufacturer's idle speed specifications by over 200 RPM on 1968 and newer model vehicles, or exceeds 1,250 RPM for any pre-1968 model vehicle.

(3) No vehicle emission control test for a 1970 or newer model vehicle shall be considered valid if any element of the following factory-installed motor vehicle pollution control systems have been disconnected, plugged, or otherwise made inoperative in violation of ORS 483.825(1), except as noted in section (5) or as provided for by 40 CFR 85.1701-1709. Motor vehicle pollution control systems include, but are not necessarily limited to:

(a) Positive crankcase ventilation (PVC) system.

(b) Exhaust modifier system:

(A) Air injection reactor system;

(B) Thermal reactor system;

(C) Catalytic converter system - (1975 and newer model vehicles only).

(c) Exhaust gas recirculation (EGR) systems - (1973 and newer model vehicles only).

(d) Evaporative control system

(e) Spark timing system:

(A) Vacuum advance system;

(B) Vacuum retard system.

(f) Special emission control devices. Examples:

(A) Orifice spark advance control (OSAC);

(B) Speed control switch (SCS).

(C) Thermostatic air cleaner (TAC).

(D) Transmission controlled spark (PCS).

(E) Throttle solenoid control (TSC).

(F) Fuel filler inlet restrictors.

(G) Oxygen Sensor

(4) No vehicle emission control test for a 1970 or newer model vehicle shall be considered valid if any element of the factory-installed motor vehicle pollution control system has been modified or altered in such a manner so as to decrease its efficiency or effectiveness in the control of air pollution in violation of ORS 483.825(2), except as noted in section (5). For the purposes of this section, the following apply:

(a) The use of a non-original equipment aftermarket part (including a rebuilt part) as a replacement part is not considered to be a violation of ORS 483.825(2), if a reasonable basis exists for knowing that such use will not adversely effect emission control efficiency. The Department will maintain a listing of those parts which have been determined to adversely affect emission control efficiency.

(b) The use of a non-original equipment aftermarket part or system as an add-on, auxiliary, augmenting, or secondary part or system, is not considered to be a violation of ORS 483.825(2), if such a part or system is listed on the exemption list of "Modifications to Motor Vehicle Emission Control System Permitted Under California Vehicle Code Section 27156 granted by the Air Resources Board," or is on the list maintained by the U.S. Environmental Protection Agency of "Certified to EPA Standards," or has been determined after review of testing data by the Department that there is no decrease in the efficiency or effectiveness in the control of air pollution.

(c) Adjustments or alterations of a particular part or system parameter, if done for purposes of maintenance or repair according to the vehicle or engine manufacturer's instructions, are not considered violations of ORS 483.825(2).

(5) A 1970 and newer model motor vehicle which has been converted to operate on gaseous fuels shall not be considered in violation of ORS 483.825(1) or (2) when elements of the factory-installed motor vehicle air pollution control system are disconnected for the purpose of conversion to gaseous fuel as authorized by ORS 483.825(3).

(6) The following applies:

(a) to [1979 and earlier] 1970 through 1979 motor vehicles. When a motor vehicle is equipped with other than the original engine and the factory installed vehicle pollution control systems, it shall be classified by the model year and manufacture make of the non-original engine and its factory-installed motor vehicle pollution control systems, except that when the non-original engine is older than the motor vehicle any requirement for evaporative control system and fuel filler inlet restrictor and catalytic convertor shall be based on the model year of the vehicle chassis.

(b) to 1980 and newer motor vehicles. These motor vehicles shall be classified by the model year and make of the vehicle as designated by the original chassis, engine, and its factory-installed motor vehicle pollution control systems.

Heavy Duty Gasoline Motor Vehicle Emission Control Test Criteria

340-24-325 (1) No vehicle emission control test shall be considered valid if the vehicle exhaust system leaks in such a manner as to dilute the exhaust gas being sampled by the gas analytical system. For the purpose of emission control tests conducted at state facilities, tests will not be considered valid if the exhaust gas is diluted to such an extent that the sum of the carbon monoxide and carbon dioxide concentrations recorded for the idle speed reading from an exhaust outlet is 8 percent or less.

(2) No vehicle emission control test shall be considered valid if the engine idle speed either exceeds the manufacturer's idle speed specifications by over 200 RPM on 1970 and newer model vehicles, or exceeds 1000 RPM for any age model vehicle.

(3) No vehicle emission control test for a 1970 or newer model vehicle shall be considered valid if any element of the following factory-installed motor vehicle pollution control systems have been disconnected, plugged, or otherwise made inoperative in violation of ORS 483.825(1), except as noted in section (5):

(a) Positive crankcase ventilation;

(b) Exhaust modifier system. Examples:

(A) Air injection system

(B) Thermal reactor system

(C) Catalytic convertor system.

(c) Exhaust gas recirculation (EGR) systems;

(d) Evaporative control system;

(e) Spark timing system. Examples:

(A) Vacuum advance system;

(B) Vacuum retard system.

(f) Special emission control devcies. Examples:

(A) Orifice spark advance control (OSAC);

(B) Speed control switch (SCS);

(C) Thermostatic air cleaner (TAC);

(D) Transmission controlled spark (TCS);

(E) Throttle solenoid control (TSC);

(F) Fuel filler inlet restrictor.

(4) No vehicle emission control test conducted for a 1970 or newer model vehicle shall be considered valid if any element of the factory-installed motor vehicle pollution control system has been modified or altered in such a manner so as to decrease its efficiency or effectiveness in the control of air pollution in violation of ORS 483.825(2), except as noted in section(3). For the purposes of this section, the following apply;

(a) The use of a non-original equipment aftermarket part (including a rebuilt part) as a replacement part is not considered to be a violation of ORS 483.825(2), if a reasonable basis exists for knowing that such use will not adversely effect emission control efficiency. The Department will maintain a listing of those parts which have been determined to adversely affect emission control efficiency.

(b) The use of a non-original equipment aftermarket part or system as an add-on, auxiliary, augmenting, or secondary part or system, is not considered to be a violation of ORS 483.825(2), if such part or system is listed on the exemption list maintained by the Department.

(c) Adjustments or alterations of a particular part or system parameter, if done for purposes of maintenace or repair according to the vehicle or engine manufacturer's instructions, are not considered violations of ORS 483.825(2).

(5) A 1970 or newer model motor vehicle which has been converted to operate on gaseous fuels shall not be considered in violation of ORS 483.825(1) or (2) when elements of the factory-installed motor vehicle air pollution control system are disconnected for the purpose of conversion to gaseous fuel as authorized by ORS 483.825(3).

(6) For the purposes of these rules, a 1970 or newer motor vehicle with an exchange engine shall be classified by the model year and manufacturer make of the exchange engine, except that any requirement for evaporative control systems shall be based upon the model year of the vehicle chassis.

Stat. Auth.: ORS Ch. 468
Hist: DEQ 136, f. 6-10-77, ef.7-1-77, DEQ 22-1979, f. & ef. 7-5-79

OAR 340-24-330 LIGHT DUTY MOTOR VEHICLE EMISSION CONTROL CUTPOINTS OR STANDARDS

(1) Light Duty Diesel Motor Vehicle Emission Control Cutpoints

All:	1.0% CO	No HC Check

(2) Light Duty Gasoline Motor Vehicle Emission Control Cutpoints
Two Stroke Cycle

All:	6.5% CO	No HC Check

(3) Light Duty Gasoline Motor Vehicle Emission Control Cutpoints
Four Stroke Cycle - Passenger Cars

Pre 1968 Model Year

4 or less cylinders		
All:	6.5% CO	1550 ppm HC
More than 4 cylinders		
All:	6.0% CO	1250 ppm HC

1968 - 1969 Model Year

4 or less cylinders		
All:	5.5% CO	850 ppm HC
More than 4 cylinders		
All:	5.0% CO	650 ppm HC

1970 - 1971 Model Year

All:	4.5% CO	550 ppm HC

1972 - 1974 Model Year

Alfa Romeo	3.5% CO	450 ppm HC
American Motors	3.5% CO	350 ppm HC
Audi	3.0% CO	450 ppm HC
BMW	3.5% CO	450 ppm HC
BL-Jaguar	3.5% CO	350 ppm HC
BL-MG	4.5% CO	450 ppm HC
BL-Triumph	4.0% CO	450 ppm HC
BL-Other	4.5% CO	450 ppm HC
Buick	2.5% CO	350 ppm HC
Cadillac	2.5% CO	350 ppm HC
Capri	3.0% CO	450 ppm HC
Checker	2.5% CO	350 ppm HC
Chevrolet	2.5% CO	350 ppm HC
Chrysler	2.5% CO	350 ppm HC
Colt, Dodge	5.5% CO	450 ppm HC

1972 - 1974 Model Year - Continued

Cricket,Plymouth-Single Carb.Only	7.5% CO	450 ppm HC
Cricket,Plymouth - All Others	4.0% CO	450 ppm HC
Datsun	3.0% CO	450 ppm HC
Dodge	2.5% CO	350 ppm HC
Ferrari	3.5% CO	350 ppm HC
Fiat	4.5% CO	450 ppm HC
Ford	2.5% CO	350 ppm HC
Ford - 4 cylinder	2.5% CO	450 ppm HC
Honda Automobile - 1972	5.5% CO	450 ppm HC
Honda Automobile - All Others	3.5% CO	450 ppm HC
Jensen-Healey	5.0% CO	450 ppm HC
Lincoln	2.5% CO	350 ppm HC
Mazda - Piston Engine	4.5% CO	450 ppm HC
Mazda - Rotary Engine	3.0% CO	450 ppm HC
Mercury	2.5% CO	350 ppm HC
Oldsmobile	2.5% CO	350 ppm HC
Opel	3.5% CO	450 ppm HC
Peugeot	3.5% CO	450 ppm HC
Plymouth	2.5% CO	350 ppm HC
Pontiac	2.5% CO	350 ppm HC
Porsche 914 - 1974	5.5% CO	450 ppm HC
Porsche - All Others	3.5% CO	450 ppm HC
Renault	3.5% CO	450 ppm HC
Rolls Royce and Bentley	3.5% CO	350 ppm HC
Saab	3.5% CO	450 ppm HC
Subaru	3.5% CO	450 ppm HC
Toyota	3.5% CO	450 ppm HC
Volkswagen - Type 4	4.5% CO	450 ppm HC
- Dasher	3.0% CO	450 ppm HC
- All Others	3.5% CO	450 ppm HC
Volvo	3.5% CO	450 ppm HC
All Vehicles Not Listed	3.5% CO	450 ppm HC

1975 - 1980 Model Year

Catalyst Equipped		
All:	0.5% CO	175 ppm HC
Non-Catalyst Equipped		
All:	2.0% CO	250 ppm HC

1981 and Newer Model Year

All: At idle	0.5% CO	175 ppm HC
At 2500 rpm	0.5% CO	175 ppm HC

(4) Light Duty Gasoline Motor Vehicle Emission Control Cut Points - Light Duty Trucks

(a) 6000 GVWR or less

Pre 1968 Model Year		
4 or less cylinders		
All:	6.5% CO	1550 ppm HC
More than 4 cylinders		
All:	6.5% CO	1250 ppm HC
1968 - 1969 Model Year		
4 or less cylinders		
All:	5.5% CO	850 ppm HC
More than 4 cylinders		
All:	5.0% CO	650 ppm HC
1970 - 1971 Model Year		
All:	4.5% CO	550 ppm HC
1972 - 1974 Model Year		
4 or less cylinders		
All:	3.5% CO	450 ppm HC
More than 4 cylinders		
All:	2.5% CO	350 ppm HC
1975 - 1980 Model Year		
Catalyst Equipped		
All:	0.5% CO	175 ppm HC
Non-Catalyst Equipped		
All:	2.0% CO	250 ppm HC
1981 and Newer Model Year		
All: At idle	0.5% CO	175 ppm HC
At 2500 rpm	0.5% CO	175 ppm HC

(b) 6001 to 8500 GVWR

Pre 1968 Model Year		
All:	6.0% CO	1250 ppm HC
1968 - 1969 Model Year		
All:	5.0% CO	650 ppm HC
1970 - 1971 Model Year		
All:	4.5% CO	550 ppm HC
1972 - 1974 Model Year		
All:	2.5% CO	350 ppm HC
1975 - 1978 Model Year		
All:	2.0% CO	250 ppm HC

1979 - 1980 Model Year		
Catalyst Equipped		
All:	0.5% CO	175 ppm HC
Non-Catalyst Equipped		
All:	2.0% CO	250 ppm HC
1981 and Newer		
All: At idle	0.5% CO	175 ppm HC
At 2500 rpm	0.5% CO	175 ppm HC

(5) An enforcement tolerance of 0.5% carbon monoxide and 50 ppm hydrocarbon will be added to the above cutpoints.

(6) There shall be no visible emission during the steady-state unloaded and raised rpm engine idle portion of the emission test from either the vehicle's exhaust system or the engine crankcase. In the case of diesel engines and two-stroke cycle engines, the allowable visible emission shall be no greater than 20% opacity.

(7) The Director may establish specific separate standards, differing from those listed in subsections (1), (2), (3), (4), (5) and (6) for vehicle classes which are determined to present prohibitive inspection problems using the listed standards.

340-24-335 HEAVY-DUTY GASOLINE MOTOR VEHICLE EMISSION CONTROL EMISSION STANDARDS

(1) Carbon Monoxide idle emission values not to be exceeded:

	Base Standard %	Enforcement Tolerance %
ALL VEHICLES		
Pre-1970	6.0	0.5
1970 through 1973	4.0	1.0
1974 through 1978	3.0	1.0
1979 and later	2.0	1.0

(2) Carbon monoxide nominal 2,500 RPM emission values not to be exceeded:

	Base Standard %	Enforcement Tolerance %
ALL VEHICLES		
Pre-1970	3.0	1.0
1970 and later	2.0	1.0
Fuel Injected	No Check	

(3) Hydrocarbon idle emission values not to be exceeded:

	Base Standard PPM	Enforcement Tolerance PPM
ALL VEHICLES		
Pre-1970	700	200
1970 through 1973	500	200
1974 through 1978	300	200
1979 and later	250	100

(4) There shall be no visible emission during the steady-state unloaded engine idle and raised rpm portion of the emission test from either the vehicle's exhaust system or the engine crankcase.

(5) The Director may establish specific separate standards, differing from those listed in subsections (1), (2), (3), and (4) for vehicle classes which are determined to present prohibitive inspection problems using the listed standard.

Criteria for Qualifications of Persons Eligible to Inspect Motor Vehicles and Motor Pollution Control Systems and Execute Certificates

340-24-340 (1) Three separate classes of licenses are established by these rules:

(a) Motor Vehicle fleet operations.

(b) Fleet operation vehicle emission inspector.

(c) State employed vehicle emission inspector.

(2) Application for a license must be completed on a form provided by the Department.

(3) Each license shall be valid through December 31 of each year unless revoked, suspended, or returned to the Department.

(4) No license shall be issued until the applicant has fulfilled all requirements and paid the required fee.

(5) No license shall be transferable.

(6) Each license may be renewed upon application and receipt of renewal fee if the application for renewal is made within the 30 day period prior to the expiration date and the applicant complies with all other licensing requirements.

(7) A license may be suspended, revoked, or not renewed if the licensee has violated these rules or ORS 468.360 to 468.405, 481.800 to 483.820.

(8) A fleet operation vehicle emission inspector license shall be valid only for inspection of, and execution of certificates for, motor vehicle pollution control systems and motor vehicles of the motor vehicle fleet operation by which the inspector is employed on a full time basis, except:

(a) A fleet operation vehicle emission inspector employed by a governmental agency may be authorized by the Department to perform inspections and execute Certificates of Compliance for vehicles of other governmental agencies that have contracted with that agency for that service and that contract having the approval of the Director.

(9) To be licensed as a vehicle emission inspector, the applicant must:

(a) Be an employee of the Vehicle Inspection Division of the Department, or

(b) Be an employee of a license motor vehicle fleet operation.

(c) Complete application.

(d) Satisfactorily complete a training program conducted by the Department. Only persons employed by the Department or by a motor vehicle fleet operation shall be eligible to participate in the training program unless otherwise approved by the Director. The duration of the training program for persons employed by a motor vehicle fleet operation shall not exceed 24 hours.

(e) Satisfactorily complete an examination pertaining to the inspection program requirements. This examination shall be prepared, conducted, and graded by the Department.

(10) To be licensed as a motor vehicle fleet operation, the applicant must:

(a) Be the owner of 100 or more Oregon registered in-use motor vehicles, or 50 or more publicly owned vehicles registered pursuant to to ORS [281.125] 481.125.

(b) Be equipped with an exhaust gas analyzer complying with criteria established in rule 340-24-350.

(c) Be equipped with a sound level meter conforming to **"Requirements for Sound Measuring Instruments and Personnel"** (NPCS-2) manual, revised September 15, 1974, of this Department.

(11) No person licensed as a motor vehicle fleet operation shall advertise or represent himself as being licensed to inspect motor vehicles to determine compliance with the criteria and standards of rules 340-24-320 and 340-24-330.

GAS ANALYTICAL SYSTEM LICENSING CRITERIA

340-24-350 (1) To be licensed, an exhaust gas analyzer must:

(a) Conform substantially with either:

(A) All specifications contained in the document "Specifications for Exhaust Gas Analyzer System Including Engine Tachometers" dated July 9, 1974, prepared by the Department and on file in the office of the Vehicle Inspection Program of the Department,

(B) The technical specifications contained in the document "Performance Criteria, Design Guidelines, and Accreditation Procedures for Hydrocarbon (HC) and Carbon Monoxide (CO) Analyzers Required in California Official Motor Vehicle Pollution Control Stations," issued by the Bureau of California, and on file in the office of the Vehicle Inspection Program of the Department. Evidence that an instrument model is approved by the California Bureau of Automotive Repair will suffice to show conformance with this technical specification, or

(C) If a gas analytical system is purchased after January 1, 1982, the techinical specifications contained in the document "The California Exhaust Gas Analyzer Specification - 1979" on file in the office of the Vehicle Inspection Program of the Department.

(b) Be owned by the licensed motor vehicle fleet operation or the Department.

(c) Be span gas calibrated a minimum of once a month (at least every 30 calendar days) by licensed inspector. The calibration and the inspector's initials are to be recorded on the back of the exhaust gas analyzer's license for verification by the Department.

(2) Application for a license must be completed on a form provided by the Department.

(3) Each license issued for an exhaust gas analyzer shall be valid through December 31 of each year, unless returned to the Department or revoked.

(4) A license for an exhaust gas analyzer system shall be renewed upon submission of a statement by the motor vehicle fleet operation that all conditions pertaining to the original license issuance are still valid and that the unit has been gas calibrated and its proper operation verified within the last 30 days by a vehicle emission inspector in their employment.

(5) Grounds for revocation of a license issued for an exhaust gas analyzer system include the following:

(a) The unit has been altered, damaged, or modified so as to no longer conform with the specifications of subsection (1)(a) of this rule.

(b) The unit is no longer owned by the motor vehicle fleet operation to which the license was issued.

(c) The Department verifies that a Certification of Compliance has been issued to a vehicle which has been emission tested by an analyzer that has not met the requirements of subsection (1)(c) of this section.

(6) No license shall be transferable.

(7) No license shall be issued until all requirements of section (1) of this section are fulfilled and required fees paid.

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: Director

Subject: Agenda Item No. G1, April 16, 1982, EQC Meeting

Request for Authorization to Hold a Public Hearing on Proposed Revisions to the State Air Quality Implementation Plan for the Portland-Vancouver Interstate AQMA (Oregon Portion) Regarding Ozone Control Strategies

BACKGROUND AND PROBLEM STATEMENT

Background

The Clean Air Act Amendments (CAAA) of 1977 require states to submit plans to demonstrate how they will attain and maintain compliance with national ambient air standards for those areas designated as "nonattainment". The Portland metropolitan area currently exceeds the federal ozone standard, as measured at a maximum impact site located downwind from the urbanized area at Carus.

On March 3, 1978 the Environmental Protection Agency (EPA) designated the Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) as a nonattainment area for ozone. In accordance with the CAAA, former Governor Straub designated the Columbia Regional Association of Governments (CRAG) as the lead agency responsible for developing the Ozone State Implementation Plan (SIP) revisions for the Portland AQMA. On December 12, 1978, Governor Straub redesignated the Metropolitan Service District (Metro) as lead agency, effective January 1, 1979, in accordance with the voter approved May 23, 1978, ballot measure which abolished CRAG and transferred its responsibilities and powers to a reorganized Metro.

An analysis of ozone precursor emissions was performed by Metro. The analysis showed that the AQMA would not be able to attain the federal ozone standard by December 31, 1982, even with the implementation of Reasonably Available Transportation Measures (RATM).

Consequently, on June 8, 1979 the EQC adopted a revised ozone SIP for the Oregon portion of the Portland-Vancouver AQMA which requested an extension beyond 1982 for the attainment of the fedral ozone standard. The Governor submitted the ozone plan, with the extension request, to EPA on June 20, 1979. The extension request obligated the State to prepare and submit to EPA a detailed control strategy plan by July, 1982.

EPA conditionally approved the extension request, requiring the State to make certain changes to the New Source Review regulations and to submit a detailed State Implementation Plan (SIP) control strategy by the Statutory deadline of July, 1982. EPA further required that the plan must show attainment of the federal ozone standard as soon as practicable, but not later than December 31, 1987.

Since the extension request, New Source Review rules have been adopted which satisfy EPA's concerns.

The Department passed through some EPA planning funds to Metro and signed a contract with Metro for the delivery of a detailed ozone control strategy plan.

Metro developed a comprehensive control strategy alternatives analysis. Two documents were produced and submitted to EPA: 1) Technical Memorandum #35, Air Quality Control Strategy Analysis; 2) Technical Memorandum #37, Cost Effectiveness of Transportation/Air Quality Control Strategies.

The main features of the control plan are presented in the Alternatives and Evaluation section of this EQC report. The plan was adopted by the Metro Council on February 25, 1982.

Problem Statement

In order to submit an adopted SIP revision to EPA by July, 1982, the hearing process must be authorized at the April EQC meeting.

Authority for the Commission to Act

Chapter 468, Section 020 gives the Commission authority to adopt necessary rules and standards; Section 295 authorizes the Commission to establish air quality rules and standards for the State; Section 305 authorizes the Commission to prepare and develop a comprehensive plan. Attachment 1 contains the Statement of Need for Rulemaking and the Fiscal and Economic Impact Statement.

ALTERNATIVES AND EVALUATION

The main body of the proposed ozone SIP document is appended to this report in Attachment 2.

Work began on a revised ozone analysis in the Fall of 1981. An updated emission inventory was assembled using 1980 population and employment

data. The 1987 emission inventory takes into account only committed transportation projects (Banfield Light Rail Transit project and associated improvements) plus Round 1 and Round 2 industrial source Volatile Organic Compound (VOC) controls. The emissions inventory and modeling process are presented in the SIP, Section 4.3.2.

The results of the emissions analysis (SIP, Section 4.3.3) were put into EPA's city specific isopleth version of the Empirical Kinetic Modeling Approach (EKMA). Use of the EPA model results in a design ozone concentration of 0.146 ppm which compares to the federal standard of 0.12 ppm. EKMA shows that a twenty-six percent reduction in VOC emissions is needed to just meet the federal ozone standard. According to the emissions analysis, a reduction of twenty-seven percent in VOC emissions is projected by 1987. Modeling indicates that the predicted emission reduction will be 1,700 Kg/Day of VOC more than would be required to just meet the standard. This margin is approximately one percent of the total VOC emissions. The margin is expected to increase slightly in future years as total VOC emissions continue to decline due to lower emissions from the vehicle fleet.

Upon completion of the EKMA modeling, Metro put together the ozone control strategy. It consists of a program of already committed VOC emission reductions from transportation sources and industrial sources. The main elements of the ozone control strategy are listed below.

Transportation Sources

1. Continue the Biennial Auto Inspection Maintenance program in conjunction with the existing federal program on the control of tail pipe emissions.

2. Construct the Banfield Light Rail Transit project and associated transit service improvements and highway improvements.

Industrial Sources

1. Continue to apply reasonably available control technology to Round 1 and Round 2 industrial VOC sources.

The expected reductions in VOC emisions by 1987 are tabulated below by source.

Source	Reduction by 1987, Kg/Day	% of Reduction Needed to Attain Standards
Transportation	39,380	74
Industry	13,910	26
Total	53,290	100

Controls on industrial sources accounted for a reduction of 7,310 Kg/Day in 1980 which is reflected in the 1980 base year emission inventory. Full compliance with the industrial VOC emission standards is expected to result in an additional 15,110 Kg/Day reduction, which is included in the 1987 emission inventory.

Provisions to manage new industrial growth are included in the SIP. The State will administer a New Source Review program and utilize a growth cushion concept. The growth cushion plan, however, was developed with opposition from the State of Washington. The Department and Metro have strongly felt that the 1700 Kg/day surplus in emission reduction should be used as a growth cushion for major new sources. This approach would allow the area to abandon the offset program. Such actions would remove a major impediment to growth and development without sacrificing air quality objectives. The State of Washington, which must produce a compatible ozone SIP for the Southwest Washington portion of the AQMA, has objected to use of the 1700 Kg/day cushion claiming it is within modeling error. They strongly favored staying in the offset mode. The Department and Metro have used EPA procedures and conservative assumptions in the strategy modeling and have received verbal assurance from EPA that they would recognize the growth cushion. The Portland Air Quality Advisory Committee and Metro Council have also approved this concept.

An attempt was made to resolve the interstate issue through Metro's Bi-State Committee of elected officials. This effort failed and it was left to both states to submit SIPs which hopefully would be approved by EPA.

The Department proposed proportioning of the 1700 Kg/day growth cushion in the SIP for management purposes on an 85%-15% basis - 1450 Kg/day and 250 Kg/day for Oregon and Washington, respectively. (See amendment in Attachment 3). This percentage is the approximate population and VOC emission split between the two areas and is the agreed upon formula for achievement of emission reductions needed to attain the standard.

If Washington submits a SIP relying on their offset program, it would appear EPA could approve both SIPs as being compatible and Washington could utilize their share of the growth cushion for offsets. If the growth cushions are used up, then offsets would have to then be relied upon until a new growth cushion is created.

A Reasonable Further Progress (RFP) line has been established which will be monitored and reported on an annual basis to EPA (refer to Ozone SIP, Figure 4.3.3-1). If RFP is not being met, the plan contains a contingency provision. Metro is committed to first evaluate the annual Transportation Improvement Program and make any necessary changes. Additional measures would be pursued consistent with governmental consultation and public review procedures.

The Portland Air Quality Advisory Committee was instrumental in guiding development of the ozone attainment plan. The Committee prioritized EPA's eighteen transportation measures for additional analysis. Estimates were

made of potential emission reductions from transportation sources as well as stationary sources. Results of the work were submitted to EPA in 1980. However, the 1981 analysis showed that none of the alternative strategies would be needed, as a small surplus in emission reductions was predicted. Upon review of the results of the 1981 analysis, the Committee recommended that a growth cushion policy be implemented in the Oregon portion of the AQMA.

The plan has been coordinated with the Regional Planning Council of Clark County, Washington. Metro staff coordinated review of the plan by local governments. The Metro Council endorsed the plan on February 25, 1982.

SUMMATION

1. The Oregon portion of the Portland-Vancouver AQMA has been designated a nonattainment area for ozone.

2. Metro, as the designated lead agency, was responsible for developing a detailed control strategy plan by July, 1982 (Attachment 2).

3. The control strategy must result in attainment of the federal ozone standard as soon as practicable, but not later than December 31, 1987.

4. A revised ozone analysis was performed in the Fall of 1981 with a new base year of 1980. Results of the analysis indicate that controls on existing industrial sources plus a continuation of present control programs on transportation sources (refer to item 6) will be more than sufficient to project attainment by 1987. Modeling indicates that Volatile Organic Compound emissions in 1987 will be 1,700 Kg/Day lower than the emissions levels required to just meet the standard.

5. The key strategy elements for attaining the federal ozone standard include: 1) continuation of the Portland area Biennial Auto Inspection Maintenance program along with the existing federal program on the control of tail pipe emissions; 2) committed transportation projects, with special emphasis on the Banfield Light Rail Transit project and associated improvements; 3) the existing Volatile Organic Compound Rules applied to existing industrial sources.

6. To manage new industrial growth, the State will administer a new source review program. The Department proposes to administer a growth cushion which would be available for management by Oregon and Washington at 1,450 Kg/Day and 250 Kg/Day for each state, respectively. This cushion approach (Attachment 3) was opposed by the State of Washington which favors remaining in an offset mode. Should Washington submit its SIP this May, it is believed EPA could approve both state SIPs as compatible.

7. Reasonable Further Progress (RFP) has been defined for ozone, and procedures for monitoring and reporting it have been specified.

8. If RFP is not being met. the plan contains a contingency provision which outlines procedures that would be followed to remedy a shortfall in necessary emission reductions.

9. The Portland Air Qualty Advisory Committee was instrumental in guiding development of the ozone attainment plan. The plan has been coordinated with the Regional Planning Council of Clark County, Washington. Metro staff coordinated review of the plan by local governments. The Metro Council adopted the plan on February 25, 1982.

10. The ozone strategy must be submitted to the EPA as a SIP revision by July, 1982.

Director's Recommendation

Based on the Summation, the Director recommends that the EQC authorize a public hearing to consider public testimony on the proposed 1982 Ozone SIP Revision for the Portland-Vancouver Interstate AQMA.

Bill

William H. Young

Attachments: 1) Statement of Need for Rulemaking and Fiscal and Economic Impact Statement.
2) Proposed Control Strategy for Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) (Oregon Portion) State Implementation Plan Revision for Ozone.
3) Amendment to Growth Management Plan.
4) Public Hearing Notice

John F. Kowalczyk:a
AA1957 (1)
229-6459
March 24, 1982

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

Federal Clean Air Act as Amended 1977 (PL 95-95).

ORS Chapter 468, including Section 020 which gives the Commission authority to adopt necessary rules and standards, Section 295 which authorizes the Commission to establish air quality standards for the State, and Section 305 which authorizes the Commission to prepare and develop a comprehensive plan.

Need for the Rule

The Portland metropolitan area currently exceeds the federal ozone standard. For a designated nonattainment area that cannot attain standards by December 31, 1982, the Clean Air Act requires submittal of a detailed control strategy plan by July 1, 1982. The plan must show attainment of standards as soon as practicable, but not later than December 31, 1987. The proposed control strategy brings the area into attainment by December 31, 1987.

Principal Documents Relied Upon

1. Clean Air Act Amendments of 1977, PL 97-95, 8/7/77.
2. DEQ Updated Emission Inventory.
3. EPA, State Implementation Plans; Approval of 1982 Ozone and Carbon Monoxide Plan Revisions for Areas Needing an Attainment Date Extension; and Approved Ozone Modeling Techniques; Final Policy and Proposed Rulemaking, Federal Register/Vol. 46, No. 14/Thursday, January 22, 1981/Rules and Regulations.
4. EPA (1980), Guidelines for Use of City-Specific EKMA in Preparing Ozone SIPs, EPA-450/4-80-027.
5. EPA (1980), Emission Inventory Requirements for 1982 Ozone State Implementation Plans, EPA-450/4-80-016.

Fiscal Impact Statement Including Impact on Small Business

The only major transportation project specifically identified as a control strategy element in the plan is the Banfield Light Rail Transit project. This project is budgeted for $190 million in Interstate Transfer funds.

The proposed revisions to the ozone control plan would not impose any new costs on the private sector. By reference, the plan includes controls on existing Round 1 and Round 2 Volatile Organic Compound emission sources that were adopted by the Environmental Quality Commission on June 8, 1979 and September 19, 1980. With an emissions growth cushion in effect, the plan would eliminate the possibly significant costs to new industry of obtaining emissions offsets.

HH:a
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ATTACHMENT 2

METROPOLITAN SERVICE DISTRICT
527 S.W. HALL ST., PORTLAND, OR. 97201, 503/221-1646

METRO

MEMORANDUM

Date: March 25, 1982

To: Howard Harris, DEQ

From: Richard Brandman, Air Quality Program Manager RB

Regarding: Changes for the Ozone State Implementation Plan

Attached are changes to be incorporated into the Ozone State Implementation Plan. These changes are in response to comments from the Environmental Protection Agency.

RB:lz

Enclosure

p. 72 4.3.6.4 Basic Transportation Needs

(New Section)

The Environmental Protection Agency requires funding and implementation of public transportation measures to maintain mobility where transportation control strategies are implemented. While no additional transportation control strategies are called for in this plan to attain the ozone standard, the region is continuing its emphasis on high levels of transit and ridesharing as a means of providing mobility to the general public, while helping to relieve congestion on the highway system, reduce pollutant emissions and conserve energy. This is evidenced by the numerous transit and rideshare projects discussed in Sections 4.3.3.4, 4.3.3.5, and 4.3.3.6 of this Plan.

In addition, the region's recommended Regional Transportation Plan through the year 2000 calls for a quality of transit service that is reasonably comparable to alternative modes of travel. Transit ridership, under this Plan, is expected to increase to 3.2 times today's levels, while overall travel demand increases only 1.5 times. An increase in ridesharing for work trips of 1.5 times current levels is also called for in the Regional Transportation Plan. Together, these programs should provide for the basic transportation needs of the Portland metropolitan area's citizens.

RB:lmk
2-25-82

OZONE STATE IMPLEMENTATION PLAN
ERRATA SHEET

p. 21 4.3.3.1 Level of Control Required

(new language is underlined)

EKMA estimates a reduction of 26 percent of 1980 volatile organic compound emissions will be needed to attain the 0.12 ppm ozone ambient air quality standard. These results are based on a design concentration of 0.146 ppm of ozone.

p. 47 4.3.3.5 Additional Committed Projects

A. Transit Improvements

In ~~June~~ September 1982, Tri-Met will begin implementation of the first phase of its short-range Transit Development Plan (TDP).

p. 63 4.3.5.3 Conformity of Federal Actions

(replaces existing language)

U.S. Department of Transportation rules require that the Regional Transportation Plan and Transportation Improvement Program conform with air quality State Implementation Plans. Transportation plans and programs are determined to be in conformance with SIP's if they:

a) reflect reasonable progress in implementing those transportation control measures that are called for in the SIP to meet air quality standards; and
b) do not include actions that would reduce the effectiveness of planned transportation control measures.

To determine conformity, Metro will annually assess the Transportation Improvement Program (TIP) to ensure that it includes those projects which are detailed in this SIP as necessary for attainment of the ozone standard. Because no new projects are required to attain the ozone standard, only those existing projects discussed in Section 4.3.3.4 will need to be included in the TIP to determine conformity. The TIP will also be examined annually to ensure that it does not include projects which would adversely affect those projects which are necessary for attainment of the ozone standard.

Following Metro's review of the Transportation Improvement Program, UMTA and FHWA will make the final determination of conformity. The FY 1982 TIP has been reviewed and was found to be in conformity with the currently adopted SIP.

SECTION 4.3

CONTROL STRATEGY FOR

PORTLAND-VANCOUVER INTERSTATE

AIR QUALITY MAINTENANCE AREA (AMQA) (Oregon Portion)

STATE IMPLEMENTATION PLAN REVISION

FOR OZONE

Metropolitan Service District

Oregon Department of Environmental Quality

STATE IMPLEMENTATION PLAN REVISION FOR OZONE

PUBLISHED
AS A JOINT EFFORT BY

Metropolitan Service District
and the
Oregon Department of Environmental Quality

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January, 1982

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4.3.0 PORTLAND-VANCOUVER INTERSTATE AIR QUALITY MAINTENANCE AREA STATE IMPLEMENTATION PLAN FOR OZONE

4.3.0.1 Introduction

The Clean Air Act Amendments of 1977 require states to submit plans to demonstrate how they will attain and maintain compliance with national ambient air standards for those areas designated as "non-attainment." The Clean Air Act Amendments further require these plans to demonstrate compliance with primary standards not later than December 31, 1982. An extension up to December 31, 1987 is possible if the State can demonstrate that despite implementation of all reasonably available control measures the December 31, 1982 date cannot be met.

On March 3, 1978, the entire Portland-Vancouver Interstate Air Quality Maintenance Area was designated by the Environmental Protection Agency as a non-attainment area for ozone. In accordance with section 174 of the Clean Air Act Amendments of 1977, former Governor Straub designated the Columbia Regional Association of Governments as the lead agency for the development of the Ozone State Implementation Plan revisions for the Oregon portion of the interstate Air Quality Maintenance Area. On December 12, 1978, Governor Straub redesignated the Metropolitan Service District (Metro) as lead agency, effective January 1, 1979, in accordance with the voter approved May 23, 1978 ballot measure which abolished CRAG

and transferred its responsibilities and powers to a reorganized Metropolitan Service District.

Since mid-1978, the staff of the Metropolitan Service District (formerly the Columbia Region Association of Governments), working in cooperation with the Department of Environmental Quality, has spent considerable time projecting emissions and air quality trends for the Portland-Vancouver airshed.

An interim analysis was completed in early 1979 which resulted in the June 29, 1979 submittal to the Environmental Protection Agency (EPA) of an ozone State Implementation Plan revision. This plan made an initial estimate of the hydrocarbon emission reduction required to attain the federal ozone standard, laid the framework for the potential control measures to be evaluated, indicated that the December 31, 1982 attainment date could not be met despite the implementation of reasonably available control measures, and requested an extension of the December 1982 deadline for meeting the federal ozone standard. An extension to 1987 was granted by EPA and printed in the Federal Register on June 29, 1980 (45 FR 42265).

Subsequent to the 1979 SIP revision, Metro and DEQ evaluated the emission reduction potential and cost-effectiveness of numerous stationary and mobile source control measures. Results of this analysis were submitted to EPA by Metro in

August 1980 and April 1981 as Technical Memorandum #35 "Air Quality Control Strategy Analysis," and Technical Memorandum #37, "Cost-Effectiveness of Transportation/Air Quality Control Strategies."

In September and October 1981, Metro and DEQ, together with the Regional Planning Council of Clark County, Washington again estimated emission inventories for the base year of 1980 and attainment deadline of 1987 using new EPA emission factors and 1980 census data. The result of this analysis, the air quality control strategy analysis, and the public involvement process resulting in the recommendations contained in this plan are reported in detail in Sections 4.3.2, 4.3.3, and 4.3.6. The remainder of the plan contains sections on ambient air quality, new rules and regulations, and annual reporting and reasonable further progress requirements.

4.3.0.2 Summary

1. Most ozone, unlike carbon monoxide, is not directly emitted into the atmosphere, but results from a reaction between volatile organic compounds and nitrogen oxides in the presence of sunlight. Generally, the highest ozone concentrations are found downwind of the area producing the majority of the precursor emissions.
2. There have been six violations of the .12 ppm federal ozone standard in the Portland Air Quality Maintenance Area (AQMA) during the last three years. Five of these violations occurred in the summer of 1981 during extreme

meteorological conditions. All occurred at the downwind rural monitoring site in Carus, Oregon, approximately 20 miles south of the Portland city center. There have been no violations of the federal ozone standard during the last three years at the primary downwind urban monitoring site in Milwaukie, Oregon.

3. In 1980, industrial and other area sources contributed 51 percent of total volatile organic compound emissions within the AQMA. Highway sources (primarily automobiles) accounted for 45 percent, with off-highway vehicles contributing the remaining 4 percent.

4. By 1987, industrial and other area sources will contribute 60 percent of total emissions. Highway sources will fall to 33 percent and off-highway vehicles will contribute 7 percent.

5. In both 1980 and 1987, 84 percent of total AQMA volatile organic compound emissions are produced in the State of Oregon and 16 percent are produced in the State of Washington.

6. The air quality modeling analysis shows that a 26 percent reduction in 1980 volatile organic compound emissions will be needed to attain the .12 ppm federal ozone standard. The projected 1987 volatile organic compound emissions inventory shows that previously implemented transportation control measures, including the Oregon biennial inspection/maintenance program (a complete list is

discussed in Section 4.3.3.4), coupled with the federal motor vehicle emission control program and already adopted industrial controls will reduce emissions by 27 percent by 1987.

7. The results of the analyis discussed in No. 6 above show that the region will attain the federal ozone standard by the December 31, 1987 deadine. It is projected that the region will have 1,700 kilograms per day fewer volatile organic compound emissions than are required to attain the federal ozone standard.

8. The State of Oregon is proposing to implement a growth cushion policy, using a portion of the 1,700 kilogram per day surplus in volatile organic compound emissions projected in 1987. This policy would allow new industry to locate in the Oregon portion of the AQMA without the requirement of obtaining volatile organic compound emission offsets. Because the growth cushion is available regionwide to the States of Oregon and Washington, an interstate agreement must be reached to establish how the growth cushion will be allocated. This agreement is now being pursued by concerned jurisdictions in both states through Metro's Bi-State Policy Advisory Committee. When an agreement is reached, it will be incorporated into this plan.

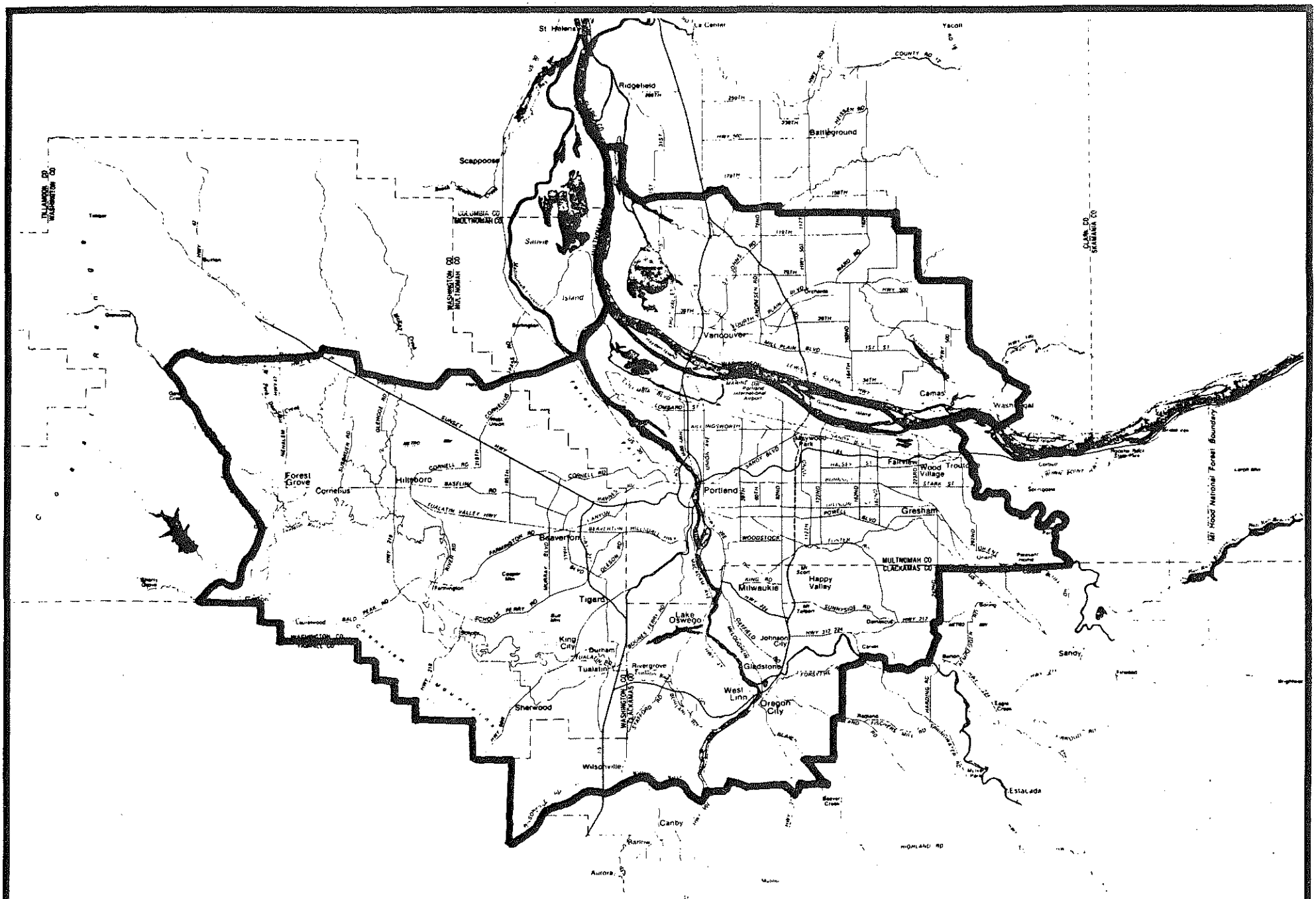
9. An analysis of the Reasonably Available Control Measures specified in the Clean Air Act amendments of 1977 was performed. New measures committed for implementation (Section 4.3.3.5) include programs for improved public

transit, ramp metering, ridesharing, bicycling, flexible working hours, parking management, and improved traffic flow.

10. Annual monitoring of Reasonable Further Progress will be performed by the Department of Environmental Quality with assistance from the Metropolitan Service District. In the event that Reasonable Further Progress is not being achieved, a Contingency Plan process has been established (Section 4.3.5).

4.3.0.3. Geographic Description of the Designated Ozone Non-Attainment Area

On March 3, 1978, the Portland-Vancouver Interstate Air Quality Maintenance Area was designated as a non-attainment area for ozone by the U.S. Environmental Protection Agency (43 CFR 8962). This designation means that the area identified in Figure 4.3.0-1 has ozone air quality concentrations exceeding the national ambient air quality standard. The Portland-Vancouver Interstate Air Quality Maintenance Area contains the urbanized portions of three counties in Oregon (Clackamas, Multnomah and Washington) and one county (Clark) in the state of Washington. This area had a 1980 population estimated to be 1,147,000 covering 2,230 km^2 (861 mi^2) of land. Geographically, this non-attainement area lies at the north end of the Willamette Valley and is almost completely surrounded by mountains and hills. Temperature inversions frequently occur, trapping emissions in the valley and resulting in elevated levels of air pollutants.



METRO

PORTLAND-VANCOUVER AIR QUALITY MAINTENANCE AREA
Designated Ozone Non-Attainment Area

Fig. 4.3.0-1

4.3.1. OZONE AMBIENT AIR QUALITY

Ozone is a clear and toxic gas. It is formed primarily by atmospheric photochemical reactions between oxides of nitrogen and volatile organic compounds in the presence of sunlight. Because of the photochemical nature of ozone formation, ozone ambient air quality levels are highly seasonal in nature, with the highest concentrations typically occurring in the summer months.

The federal primary (health related) and secondary (welfare related) ambient air quality standards for photochemical oxidant were established in 1971 at 160 ug/m^3 (0.08 ppm), maximum one-hour concentration, not to be exceeded more than once per year. This standard was revised on February 8, 1979 to 235 ug/m^3 (0.12 ppm) of ozone, maximum ozone concentration, and is not to be exceeded more than three times in three years.

Ozone air quality within the Portland portion of Portland-Vancouver Interstate Air Quality Maintenance Area is summarized in Table 4.3.1-1. The Carus site reflects the area of maximum measured downwind ozone air quality impact. It is located approximately 20 miles south of the Portland city center. There have been six violations of the federal ozone standard at this site during the last three years. Five of these violations occurred in the summer of 1981 during extreme meteorological conditions. There have been no violations of the federal ozone standard during the last three years at the primary downwind urban monitoring site in Milwaukie, Oregon.

TABLE 4.3.1-1

Ozone Ambient Air Quality Summary (ug/m^3)

LOCATION	YEAR	1 HOUR AVERAGES MAXIMUM	2ND HIGHEST	NO. OF DAYS GREATER THAN 235 (ug/m^3)
Portland Area Monitors				
Carus	1975	69	69	0
(Canby Area)	1976	278	267	4
0300101	1977	451	443	15
Site began 10/75	1978	310	302	9
	1979	245	216	1
	1980	206	196	0
	1981	421	285	5
Milwaukie	1974	372	--	11
11300 SE 23rd	1975	304	255	15
Milwaukie High	1976	208	198	0
0343111	1977	310	302	2
Site began 6/74	1978	376	270	5
	1979	225	216	0
	1980	186	171	0
	1981	212	118	0
718 W. Burnside	1974	127	--	0
(CAMS)	1975	206	147	0
2614176	1976	204	196	0
Discontinued 6/79	1977	184	165	0
	1978	227	208	0
	1979	133	123	0
Sauvie Island	1976	225	216	0
(Game Commission)	1977	208	208	0
0500103				
No data 1-6/76				
Relocated 8/77				
Sauvie Island	1977	90	86	0
(Social Sec Beach)	1978	253	245	2
0500104	1979	331	310	1
Site began 8/77	1980	166	164	0
	1981	225	213	0

NOTE: Pre-1979 ozone levels were measured with a different calibration method. The pre-1979 levels should be reduced by 20-25 percent for comparison with 1979 and later values.

Ozone levels are closely related to meteorology and as evidenced in the table, no clear trends are apparent.

4.3.2 EMISSION INVENTORY

Non-methane volatile organic compound (VOC) emissions were inventoried for the entire Portland-Vancouver AQMA for both the base year, 1980, and the attainment year, 1987.

Metro was responsible for modeling highway emissions for the entire region. The Oregon Department of Environmental Quality compiled all non-highway emissions for Oregon sources. The Regional Planning Council of Clark County compiled the non-highway emissions for the Washington sources.

The VOC emissions for the Oregon portion of the AQMA are provided by source category in Appendix 4.3-1. A detailed report on the emissions from the Washington portion of the area will be provided in Washington's State Implementation Plan. However, the combined emissions from sources in Washington and Oregon are summarized in Section 4.3.2.3. The emissions are reported as kilograms emitted on a typical summer day.

Section 4.3.2.1 describes the methodology used to calculate volatile organic compound emissions from all non-highway sources. Section 4.3.2.2 describes the methodology for highway sources.

4.3.2.1. Non-Highway Emissions

1980 Base Year

The base year non-highway VOC emission inventory was developed from the DEQ's 1980 Source Registration Files. Over the past

two years, an intensive effort was made to bring the source files up to date and provide as accurate an estimate of VOC emissions as practicable.

The non-highway emissions were compiled using the following information (in the order of preference):

A. Source tests;

B. Questionnaire and survey responses;

C. Permit restrictions;

D. Source characteristics specific to Oregon;

E. National averages.

Unless better source-specific information was available, emission factors were obtained from EPA's latest update of AP-42.

1987 Attainment Year Projections

The 1987 non-highway volatile organic compound emission inventory was estimated from the 1980 emissions using growth factors based on future population and employment forecasts. A complete description of the forecasting process is contained in Metro's "Summary Year 2000 Growth Allocations Workshops" (Appendix 4.3-2). The growth factors were applied to area sources only. Point sources, those emitting more than 25 tons/year of volatile organic compounds, were not changed between 1980 and 1987. These sources are regulated under DEQ's plant site emission limit rules, OAR 340-20-300 through -320.

These rules do not allow significant growth of stationary source emissions unless a growth margin is available or an offset can be obtained.

The 1987 emission inventory for non-highway emissions also reflects reductions that are expected to occur as the volatile organic compound emission standards rules (OAR 340-22-100 through -220) are implemented.

4.3.2.2 Highway Emissions

Overview

A sophisticated computer modeling technique was used to determine emissions from motor vehicles. The technique requires as input such parameters as population and employment levels, land use patterns, average vehicle emission data and a network of major roadways. The modeling technique that was used amounts to a two-step procedure; where the first step is the determination of the number of trips and vehicle miles traveled on roadways. The Urban Transportation Planning System package of transportation models developed by the Urban Mass Transportation Administration (UMTA) was used to make this determination. A description of this process is found in Appendix 4.3-3. The second step is the determination of total daily emissions. This was done using 1) the computer program MYPOLLUT, which calculates running emissions on the highway network; 2) the computer program ZONEMIS, which calculates hot start, cold start, hot soak, and intrazonal emissions by

vehicle trip; and 3) by calculating diurnal emissions based on the number of vehicles estimated in the region for each calendar year analyzed.

Assumptions

The inventory is based upon assumptions relative to present and future conditions in three general categories: 1) population, employment and land use patterns; 2) highway network assumptions; and 3) vehicle emission factors. It is important to note that all of the assumptions used in the transportation modeling methodology and the analysis of future air quality emissions were based on the most current information available. 1980 census data was used in creating trip tables for the highway network for base and future year projections. New population and employment projections for the region by the Federal Bureau of Economic Analysis were also utilized, as well as newly completed comprehensive plans by a majority of jurisdictions in the region. In estimating 1980 and 1987 emissions, EPA's new Mobile 2 emission factors were used.

No direct forecast of population and employment levels or land use was made for the year 1987. Rather, conditions were forecast for the year 2000 and an interpolation was made using the base year 1980 to estimate conditions for 1987. The entire process is described in "Summary Year 2000 Growth Allocation Workshops," Metro, March-April 1981. A comparison of the new population projection for 1987 versus the older "208" water quality plan projections are shown below. In the future, the

new population projection will be used for both water quality and transportation planning purposes.

Jurisdiction	"208" Projection	March 1980 Projection
Oregon AQMA	1,071,390	1,091,660
Clark County AQMA	180,823	210,560
Total	1,252,213	1,302,220

The highway network that the emission inventory for 1980 is based on consists of an amalgamation of all major and minor arterials in the Air Quality Maintenance Area. The network for the year 1987 is the same as the 1980 network with the following major additions:

Completion of I-205, the Banfield Freeway widening from I-5 to I-205, Airport Way (west of I-205), 221st/223rd (Burnside-Division), 158th Avenue (north of Walker Road), the Basin/Going intersection (Swan Island), the Oswego Creek Bridge (Lake Oswego), the Tualatin Bypass (Nyberg Road), and the Powell Boulevard widening (east of 82nd).

The transit network that the emission inventory for 1980 is based on consists of the actual transit network in service in 1980. The base case transit network for 1987 was similar to the 1980 network, but includes the addition of the Banfield Light Rail Transitway from Portland to Gresham and the increased buses required to support the Light Rail Transit (LRT). Other transit service improvements scheduled by 1987 were not included in the base case and were analyzed separately as part of Metro's TCM analysis.

Emissions Modeling Methodology

Vehicle emission factors were based upon the Environmental Protection Agency (EPA) publication Users Guide to Mobile 2 (EPA-460/381-006 February 1981). Emission reduction credits for Oregon's biennial motor vehicle inspection/maintenance program were based upon a methodology developed by the EPA's Office of Emission Control Technology. Assumptions regarding inputs to motor vehicle emission factors, e.g., vehicle distribution, ambient temperature, etc., are documented in Appendix 4.3-4.

Mobile source emissions are accounted for in three parts. The first is VMT-related emissions associated with movement on the highway network. The second is emissions associated with trip-ends and are calculated on a zonal basis. Emissions produced by intrazonal movements are also included in this category. The third category is diurnal emissions (i.e., evaporative emissions from gasoline tanks). Network emissions are output in terms of grams between zonal interchanges, while zonal emissions are output in terms of grams per zone. Diurnal emissions are calculated separately and added as a lump sum. A complete description of this process was submitted to EPA in January 1982.

4.3.2.3 Summary of Volatile Organic Compound Emissions

Volatile organic compound emissions for the years 1980 and 1987 are summarized by source categories in Tables 4.3.2-1 and 4.3.2-2. As shown in these tables, total AQMA emissions are

TABLE 4.3.2-1

Summary of Volatile Organic Compound Emissions - Oregon Only

	(Kilograms/Day)	
	1980	1987
Industrial and other Area Sources	87,030	75,550
Motor Vehicles	72,790	38,540
Off-Highway Vehicles	7,370	8,000
Total	167,190	122,090

TABLE 4.3.2-2

Summary of Volatile Organic Compound Emissions - Total AQMA

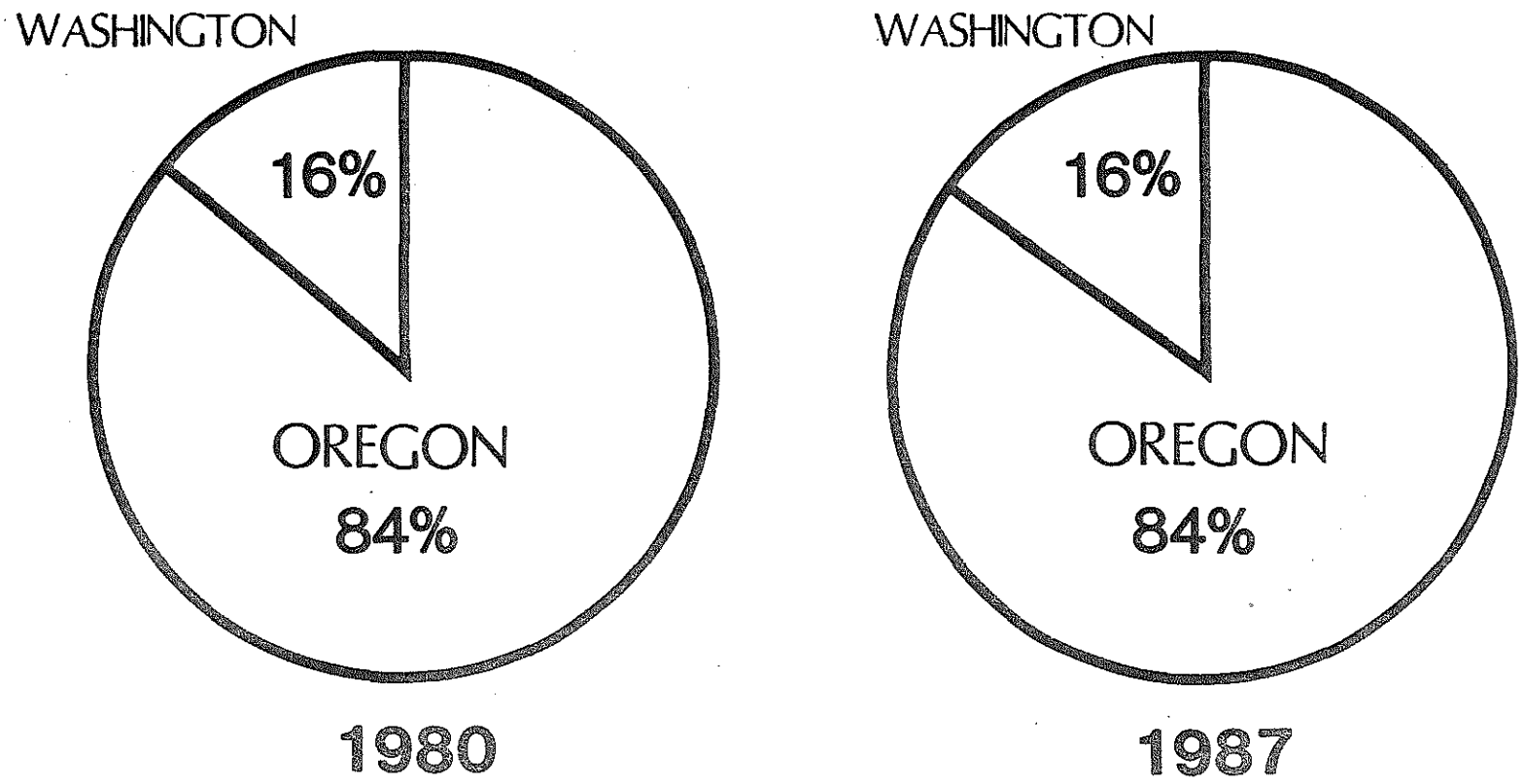
	(Kilograms/Day)	
	1980	1987
Industrial and other Area Sources	101,460	87,550
Motor Vehicles	88,260	47,770
Off-Highway Vehicles	8,700	9,810
Total	198,420	145,140

198,420 kg/day in 1980 and fall by 27 percent to 145,140 kg/day in 1987. In both years, 84 percent of the total emissions are produced by sources in the State of Oregon; 16 percent are produced by sources in the State of Washington.

In the base year 1980, industrial and other area sources contributed 51 percent of total volatile organic compound emissions within the AQMA. Highway sources (primarily automobiles) accounted for 45 percent, with off-highway vehicles contributing the remaining 4 percent.

By 1987, industrial and other area sources will contribute 60 percent of total emissions. Highway sources will fall to 33 percent and off-highway vehicles will contribute 7 percent. The primary reason for the change in source contributions is the Federal Motor Vehicle Emission Control program, coupled with Oregon's biennial inspection maintenance program. Together, these programs are projected to reduce highway source emissions by 46 percent between 1980 and 1987.

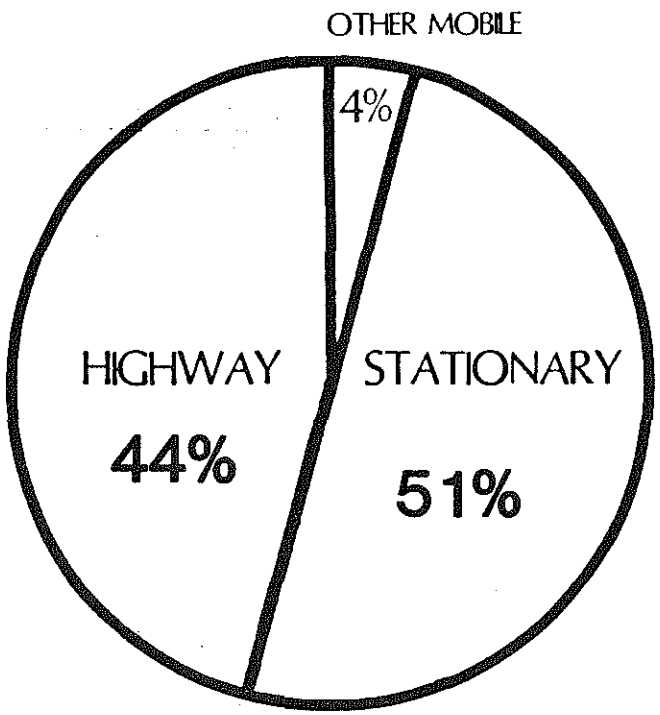
The emissions projected in the emission inventory for 1987 represent a "base case" scenario. For stationary sources, only Round 1 and Round 2 VOC controls were incorporated in the analysis. For mobile sources, all previously adopted transportation control measures (discussed in section 4.3.3.4), including Oregon's biennial inspection/maintenance program and the City of Portland downtown parking policy, were incorporated. The only new transportation control measure



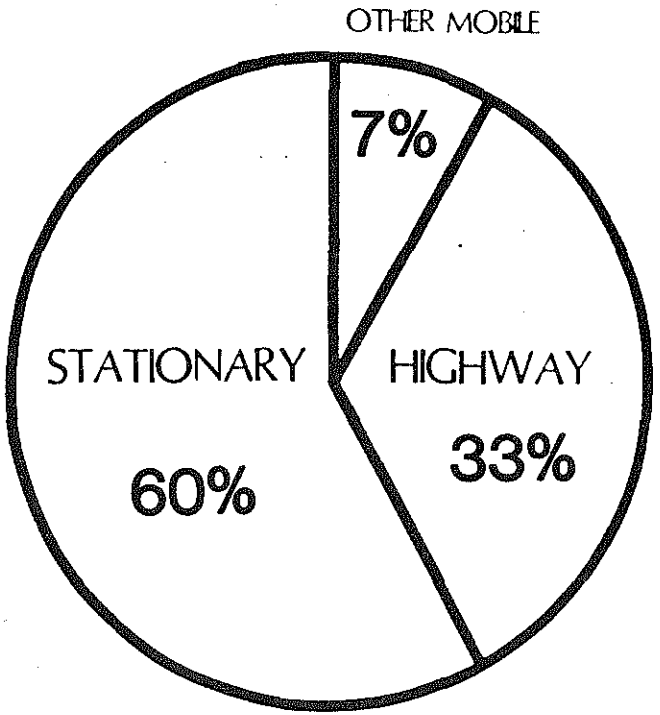
METRO

HYDROCARBON EMISSION SOURCES
by State

Fig. 4.3.2-1



1980



1987

METRO

HYDROCARBON EMISSION SOURCES

Fig. 4.3.2-2

included was the Banfield Light Rail Transitway and highway improvements. The air quality impacts of other transportation control measures were analyzed individually. The results of this analysis (shown in section 4.3.3.3) were not incorporated into the 1987 base case emission inventory, however. Thus, those new transportation control measures which are adopted (section 4.3.3.5) will further decrease projected 1987 emissions. Appendix 4.3-1 contains more detailed volatile organic compound emission inventories for the years 1980 and 1987.

4.3.3 CONTROL STRATEGY

The amount of volatile organic compound (VOC) reduction needed to attain the 0.12 ppm federal ozone standard was calculated as described in 4.3.3.1. Regionwide, by 1987 there will be a 1,700 kilogram/day greater reduction of VOC achieved than is projected to be needed for attainment. This surplus 1,700 kilograms/day will be managed as explained in section 4.3.3.2.

A number of reasonably available control measures were analyzed to determine how effective each measure would be in reducing VOCs. A Summary of the Analyses is contained in section 4.3.3.3.

Sections 4.3.3.4 and 4.3.3.5 describe the measures which have already been implemented or whose implementation is committed. These measures form the ozone control strategy.

4.3.3.1 Level of Control Required

The level of volatile organic compound emission reduction needed for compliance with the 0.12 ppm federal ozone standard was calculated using the EPA city specific isopleth version of the Emperical Kinetic Modeling Approach (EKMA).

EKMA estimates a reduction of 26 percent of 1980 volatile organic compound emissions will be needed to attain the 0.12 ppm ozone ambient air quality standard. (Refer to Appendix 4.3-5 for a complete description of the modeling process and results.) Since a 27 percent reduction of total

1980 volatile organic compound emissions is projected by the end of 1987, no additional emission reductions will be needed to attain the ozone ambient air quality standard.

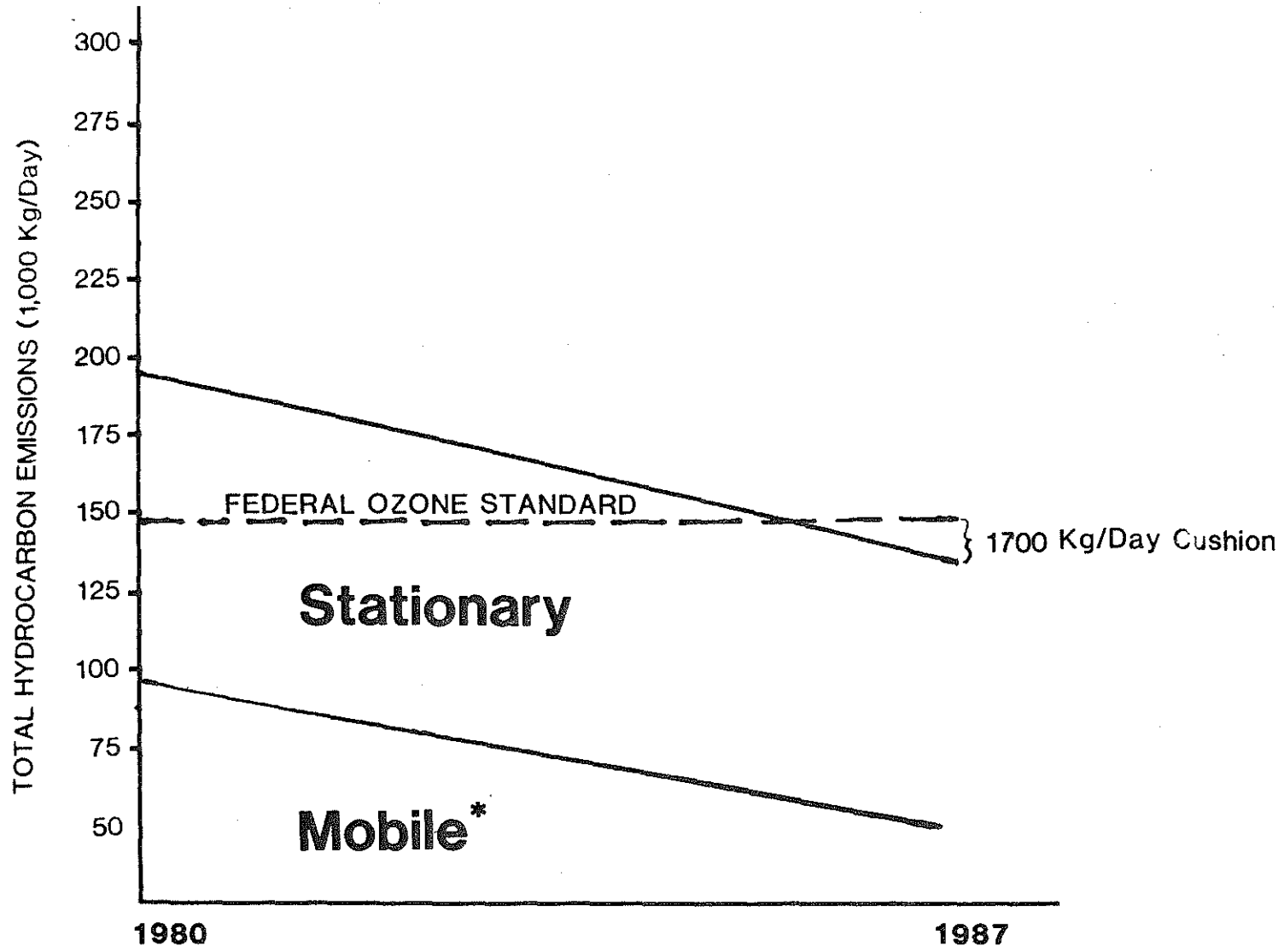
Figure 4.3.3-1 shows the needed reduction in volatile organic compound emissions to meet the federal ozone standard and the projected level of emissions in 1987.

Although no additional control measures are required to attain the federal ozone standard, new transportation control measures are being pursued to further reduce emissions, as well as for their other benefits such as energy reduction, congestion relief, etc. These measures are discussed in Section 4.3.3.5.

4.3.3.2 Growth Allocation Plan

The level of hydrocarbon emissions projected in 1987 will be 1,700 kilogram/day less than the emision level needed to attain the .12 federal ozone standard. This margin will increase in future years. While it is recognized that this margin is only about one percent of the total inventory and that the accuracy of the strategy calculation cannot be fully determined, it is felt this margin can be safey administered as a growth cushion for the following reasons:

1. All assumptions in the strategy analysis were approached conservatively;
2. There are some transportation strategies which governments will most likely implement which have not



* Includes OFF ROAD VEHICLES, BOATS, AIRPLANES

METRO

PORTLAND – VANCOUVER AIR QUALITY MAINTENANCE AREA
BASE CASE HYDROCARBON EMISSIONS

Fig. 4.3.3-1

been included in the strategy calculations (which may produce up to 1,500 kilograms/day reduction);

3. There is a large reservoir of additional strategies which could be considered to further reduce VOC emissions in the future if it turns out that the original strategy reductions were actually insufficient to meet the standards. This reservoir amounts to at least 17,000 kilograms/day.

As two states would be involved in management of VOC emission growth in the airshed, it is necessary to have a firm plan on how growth will be managed to prevent over allocation of the airshed. There are various options for allocating a growth cushion. One would be to allow new sources to locate in either Oregon or Washington on a first come, first served basis. Another would be to allocate a portion of the growth cushion to each state on a fair share basis based on a formula which both states can agree to.

An interstate agreement is now being pursued by concerned jurisdictions in both Oregon and Washington, through Metro's Bi-State Policy Advisory Committee When an agreement is reached, it will be incorporated into this plan.

4.3.3.3 Analysis of Reasonably Available Control Measures

The June, 1979 State Implementation Plan submittal included a list of measures which were considered high priority for analysis based on their expected emission reduction potential.

If these measures were not sufficient to attain the federal ozone standard, then additional measures given a lower priority were to be analyzed. Initially, 13 transportation control measures were analyzed. Following this analysis, the Air Quality Advisory Committee (Section 4.3.6.1) requested that three additional control measures be analyzed. The results of this analysis are summarized in Table 4.3.3-1 and briefly described below. A thorough description of the analysis methodology and the cost-effectiveness of each control measure is found in two reports: "Air Quality Control Strategy Analysis, Technical Memorandum #35" (Appendix 4.3-6) and "Cost-Effectiveness of Transportational Air Quality Control Strategies, Technical Memorandum #37" (Appendix 4.3-7), both published by Metro and submitted to EPA in August, 1980.

Mobile 1 emission factors were used in the analysis of these control measures because the analysis was performed in the spring of 1980 before Mobile 2 emission factors were available. Since the base case analysis used the newer Mobile 2 factors, a direct comparison of the emission reduction potential of these measures applied to the 1987 base emissions (145,350 kg/day) would not be technically accurate. However, Metro, DEQ and EPA staff feel that any discrepancies between the Mobile 2 and Mobile 1 numbers would be no more than 10 percent.

Because attainment of the ozone standard is now projected without the implementation of additional control measures,

TABLE 4.3.3-1

Summary of Effectiveness
of Alternative Control Measures

		Hydrocarbon Reductions (kg/day)
A.	Direct Emission Controls	
	1. Annual Inspection/Maintenance for Oregon	5,940
B.	Program to Improve Speeds	
	1. Ramp Metering	530
C.	Incentives to Reduce Travel	
	1. Expand Public Transit Service	1,035
	2. Park and Ride Lots	80
D.	Combination Incentive/Disincentive Programs	
	1. Priority Parking for Carpools	2,420
E.	Disincentives to Reduce Travel	
	1. $1.00 Surcharge for Work Trips	910
	2. High Gasoline Price ($2.90/gallon)	3,130
F.	Attitudinal Changes	
	1. Carpool/Vanpool	
	5% Vanpools/40% Carpools	1,610
	9% Vanpools/60% Carpools	2,210
	15% Vanpools/60% Carpools	2,770
	2. Bicycling/Work Trips	
	3.6% Bicycling	100
	5.8% Bicycling	200
	11.2% Bicycling	500
	3. Bicycling/Non-work Trips	540
G.	Free Fare Transit in Off-Peak	1,150
H.	Trip Consolidation	
	1. Scenario 1	530
	2. Scenario 2	710

a decision was made not to reanalyze the potential control measures. It must be emphasized, however, that the relative effectiveness of one control measure versus another remains the same; only the magnitude would slightly change. It must also be emphasized that the analysis of some of the measures tested their maximum potential effectiveness and that if they were ever to be implemented, the expected emission reduction would be less than indicated. This is because some measures can never be fully implemented and for other measures, there could never be 100 percent compliance.

Following is a summary of the alternatives. The emission reduction potentials shown, except for annual inspection/maintenance in Oregon, are for the potential reductions in regional emissions if similar controls were implemented in Oregon and Washington.

A. Direct Emission Controls

1. Inspection/Maintenance: The 1987 base case assumes that Portland will have a biennial inspection-maintenance program. If Portland were to implement an annual inspection/maintenance program in 1982, hydrocarbon emissions in 1987 would be reduced by an additional 5,940 kg/day.

B. Programs to Improve Speeds

1. Ramp Metering: Ramp metering was identified as the only traffic flow improvement that would have a significant

impact on regional emissions. Three major highways serve the Portland/Vancouver area: the Banfield (I-84), the Sunset (Highway 26) and Interstate 5 (I-5). If ramp metering were implemented on all of these freeways by 1987, the total hydrocarbon reduction would be approximately 530 kilograms/day.

C. Incentives to Reduce Travel

1. Expanded Public Transit Service: Tri-Met and the transit authority in Clark County, Washington have adopted short-range Transit Development Plans. The level of transit service recommended in these plans would almost be double the existing level of transit service. This increased patronage would result in a reduction in hydrocarbon emissions of 1,035 kilograms/day. It should be noted, however, that while the Tri-Met Board of Directors has adopted the TDP, only funding for the first phase of implementation has been secured.

2. Park and Ride Lots: The Transit Development Plans call for a substantial increase in Park and Ride lots by 1987. Fourteen lots in Oregon and five lots in Clark County were analyzed, having a total of 4,669 spaces. The estimated emission reduction from these lots is 80 kilograms/day.

3. Free Fare Transit in Off-Peak Hours: The Metro travel behavior techniques were used to estimate the effect of providing free transit fares during off-peak hours. As a result of an off-peak free-fare policy, transit ridership in 1987 would increase by 119,000 riders per day. The resulting decrease in regional vehicle travel would result in a reduction in hydrocarbon emissions of 1150 kilograms/day.

D. Combination Incentive/Disincentive Programs

1. Priority Parking for Carpools: This measure assumes that all persons who drive alone to work would be penalized by having to park further away from their employment site than those who carpool. If all persons who drive alone would be required to walk five extra minutes to get to their job location, and those who use transit or are members of carpools would have direct access to their employment sites, travel behavior would change to the degree that hydrocarbon emissions would be reduced by 2,420 kilograms/day.

2. $1.00 Surcharge on Work Trips: If everyone that drives alone to work was required to pay a $1.00 surcharge, additional changes in travel behavior would occur. Some people would switch to transit and others would join carpools. Approximately 910 kilograms/day of hydrocarbons would be saved as a result of these changes.

E. Disincentives to Reduce Travel

1. Increased Cost of Gasoline: An important factor influencing the mode of travel chosen by a person is the price of fuel. The price of fuel assumed by Metro in estimating emissions for 1987 was $1.70 per gallon (in current dollars). This assumes a 15 percent per annum increase in the price of gasoline from 1977 to 1987. If the price of gasoline were to rise to $2.90 (in 1980 dollars), travel behavior would change to the degree that hydrocarbon emissions would be reduced by 3,130 kg/day.

F. Attitudinal Changes: If basic attitudes toward driving alone would change, additional gains could be made through increased carpooling/vanpooling and bicycling.

1. Carpool/Vanpool

The effect of changed attitudes, which would result in more carpooling and vanpooling, was estimated by first identifying work trip movements which would likely shift to pools (i.e., longer trips, trips to large employment centers and trips where other potential poolers are making the same movement). These trips are a subset of all work trips made in the region. Of all the trips that met the defined criteria, Metro assumed that a certain percentage would actually convert to pools. The results for 1987 are summarized in the following table:

Assumed Percent of Eligible* Trips in: Vanpools	Carpools	Resultant Percent of All Work Trips in Carpools and Vanpools	Hydrocarbon Reduction (kg/day)
5%	40%	37%	1,610
9%	60%	42%	2,210
15%	80%	47%	2,770

*For vanpools, only trips over 12 miles long were considered eligible, whereas for carpools, trips over three miles long were considered eligible.

For comparison, only 23 percent of all work trips are projected to occur in carpools and vanpools in 1987 without a change in attitudes.

2. Bicycling for Work Trips

If more commuters were to change their attitude about bicycling to work, additional savings would result. Metro established targets for converting auto work trips to bicycle trips. The results of three scenarios tested showed that with attitudinal changes, between 14,000 and 44,000 work trips could be made daily by bicycle in 1987. This would reduce hydrocarbon emissions from 100 to 500 kilograms/day, depending on the scenario. For comparison, there were approximately 8,700 work trips being made daily by bicycle in 1977.

3. Bicycling for Non-Work Trips

Similarly, if more persons would favorably change their attitude toward bicycling for other kinds of trips such as school, shopping, and social and

recreational trips, even greater reductions in emissions could be achieved. If seven percent of these non-work trips (under nine miles in length) would be made by bicycle, there would be an additional savings of 540 kilograms/day. To reach this target, however, the level of bicycle ridership would have to almost triple current levels.

4. Consolidation of Non-Work Trips

Many persons today make separate trips for shopping or appointments, when they could be linked together. For example, a trip is made to the grocery store in the morning and another trip is made to the doctor's office later in the day. If these trips were "chained" together, time, travel, and expense could be saved.

Although there is no identified program which would ensure trip chaining, Metro analyzed this measure to test its potential. Two scenarios were tested. In both, it was assumed that 10 percent of the non-work trips could be chained. The first scenario tested the chaining of two trips, and the second scenario tested the chaining of three trips. If these levels of trip chaining could be achieved, the hydrocarbon emission reduction would be 530 and 710 kilograms/day, respectively.

G. Programs to Reduce Volatile Organic Compound Emissions from Stationary Sources.

The Department of Environmental Quality has adopted new emission standards for some sources emitting volatile organic compounds. These rules were developed in response to EPA's requirement that reasonably available control measures be adopted for sources for which control technology guidelines have been issued.

In addition to adopting these rules, the Department of Environmental Quality also analyzed the effectiveness of other reasonably available control strategies for stationary sources even though guidelines were not issued. The reductions that could be obtained from these additional stationary source controls are summarized in Table 4.3.3-2. The assumptions used to estimate the reductions are described in Metro's "Air Quality Control Strategy Analysis", Technical Memorandum #35 (See Appendix 4.3-6).

4.3.3.4 Projects Already Implemented

The region has already taken many major steps to reduce air pollution from transportation-related sources. In response to the requirements of the Clean Air Act of 1970 and previous State Implementation Plan submittals, many of the Reasonably Available Control Measures (RACM) specified in the Clean Air

TABLE 4.3.3-2

Potential Future VOC Reductions from Stationary Sources in the Portland AQMA

	Source Category	Emission Reduction (kilograms/day)
1.	Service Station Unloading (stage II)	4,440
2.	Wood Furniture Coating	negligible
3.	Architectural Coating	6,200
4.	Auto Refinishing	negligible
5.	Dry Cleaning (Stoddard)	386
*6.	Barge Loading	2,583
*7.	Paper Coating	8,880
*8.	Fermentation Processes	4,200

*Little data available on control efficiencies.

Act Amendments of 1977 have already been implemented in the region. These control measures are included in the 1980 base year and 1987 attainment year emission inventories. The following is a summary of these measures:

A. Inspection/Maintenance. The 1975 Legislative Assembly enacted legislation implementing a mandatory biennial motor vehicle emission control inspection program. The legislation requires that vehicles registered within the Metro boundary, which incorporates the urban area in parts of three counties around Portland, show evidence of compliance with emission control requirements prior to license renewal. The program operated on a voluntary basis during 1974 and 1975 until a mandatory program began on July 1, 1975.

The Oregon DEQ administers the program. DEQ operates seven motor vehicle emission inspection centers with two lanes each and one mobile unit. $3,352,000 is budgeted this biennium for operation of the inspection program. The program is totally supported by a $7.00 certificate fee.

DEQ augments its inspection program operations with a fleet inspection program, which allows for licensed fleets to self-inspect their own vehicles. There are currently 45 licensed inspection fleets. To qualify as a fleet, a company or government agency must have approved exhaust gas analysis equipment. Its employees must complete a department operating training session.

EPA estimates that in 1980 there was a 24 percent fleetwide reduction in hydrocarbon emissions due to the

I/M program and by 1987 there will be a 31 percent reduction. A complete description of the program is found in Appendix 4.3-8.

B. Improved Public Transit. Commitment to public transit is very high in the region. A regional transportation policy states that no new urban freeways will be built and emphasizes much improved transit services.

Tri-Met, the major transit agency in the region, has made substantial improvements in service during the last several years. Since 1969, average workday transit ridership has increased 230 percent. Although a decrease was experienced in 1981 due to a reduction in real gasoline costs, two fare increases, and very congested peak-hour buses, the trend over the past six years shows a major increase in ridership. New measures which should continue this trend are discussed in Section 4.3.3.5.

Date	Average Daily Tri-Met Ridership (Originating Rides)
*1975	93,000
*1976	106,000
*1977	116,000
*1978	121,000
1979	127,000
1980	136,000
1981	127,600

*In 1979, Tri-Met changed its accounting procedures to exclude transferring pass users from its ridership counts. 1975 through 1978 data is five to 10 percent higher than would be accounted for using the new procedure.

Some of the major improvements made by Tri-Met since 1975 include:

1. Downtown Transit Mall. The Transit Mall is composed of approximately 22 blocks in downtown Portland, giving public transit exclusive right-of-way on two of three lanes. The project was completed during 1978 and has made it easier for buses to enter and leave the downtown area, thus reducing delays in routing and minimizing cost and congestion, with the resultant reduction of pollution in the downtown area.

2. Bus Purchase. In 1977, Tri-Met purchased 100 new buses. All new buses acquired by Tri-Met meet EPA standards for emission control. Tri-Met has also overhauled 250 engines within its existing fleet to meet current (not year of manufacture) EPA emission standards.

3. Bus Shelters. About 700 bus shelters have been installed in the Portland metropolitan area as part of a $1,100,000 UMTA capital grant.

4. Fareless Square. Fareless Square was instituted in Portland in January, 1975. The Square is an area in the CBD where passengers may ride at no charge except between peak congestion hours of 3:00 p.m. - 7:00 p.m. weekdays when passengers pay normal fares. In June of 1982, when Tri-Met introduces its self-service fare system, Fareless Square will again be in effect at all hours.

Traffic data has shown that there has been no increase in vehicle miles traveled in downtown Portland during the last three years. There is no question that Fareless Square and the Transit Mall have contributed to this trend.

C. Exclusive Bus and Carpool Lanes. In late 1975, a combination carpool and bus-only lane was established on the Banfield Freeway at a cost of approximately $1,700,000. The project also consists of park and ride facilities and a special express transit service. It was designed to relieve traffic congestion within the corridor and to decrease the use of the automobile for commuting. Because of the construction of the Banfield Light Rail Transitway and highway improvements, however, the bus and carpool lane will be removed during the summer of 1982.

During 1978, a regional suburban transit station was developed on Barbur Boulevard. The station has park and ride facilities for over 300 vehicles. The project also includes priority bus treatment and serves as a focal point for transit service to nearby suburban communities.

D. Areawide Carpool Programs. Since 1974, Tri-Met has offered a carpool program that encourages the shared-ride as opposed to single occupant vehicle travel.

The program includes a matching service, employer contacts, various incentives and a continuing promotional effort.

An estimated eight percent (or 50,000) of the Tri-County commuting population are commuting in carpools of three or more people, to and from work, four or more days per week. In addition to three or more person carpools, 68,000 people are sharing rides in groups of two. Of these two groups, approximately 6,000 people are carpooling or sharing rides because of the matching service.

In cooperation with the City of Portland, Tri-Met administers the Downtown Parking Permit Program, providing preferential carpool parking at six-hour meters. A maximum of 500, $25 monthly permits can be sold under the program. In January 1981, 487 permits were issued to 1,554 people.

In cooperation with the City of Portland, Tri-Met administers a preferential on-street Carpool Parking Program in the Lloyd Center area. Fifty-two free carpool spaces were initially reserved for the program. There is currently a waiting list for these spaces and the program may be expanded.

The Rideshare Project's free Carpool Matching Service responded to 3,388 new carpool applicants during 1980. An average match rate of 61 percent has been maintained over the last year.

E. Long-Range Transit Improvements. $190 million in Interstate Transfer funds has been earmarked for the Banfield Corridor Transitway and highway improvements. The project will construct a light-rail line which will link downtown Portland with Gresham and improve the existing substandard highway. The project will also include a number of park and ride lots, ramp metering, and improved feeder bus service. The project has the approval of all the required jurisdictions.

F. Park and Ride Lots. There are 67 park and ride lots throughout the region being used by over 2,000 vehicles. Of these, 11 are major lots with over 100 stalls. These major lots are well distributed throughout the region in the following locations: Forest Grove, Gresham, Hillsboro, Oregon City, North Portland (Hayden Island), Northeast Portland (at 102nd Avenue and Sandy Boulevard), Southeast Portland (Mall 205), Southwest Portland (at Sunset Boulevard and at Barbur Boulevard), Clackamas Town Center, Washington Square, and the Tanasbourne Shopping Center.

G. Employer Programs to Encourage Carpooling and Vanpooling. Employer programs to encourage car and vanpooling are part of Tri-Met's overall regional ridesharing program. Tri-Met looks at major employers in the region on an individual basis. Then, depending on their size, location and accessibility to transit, they offer various transportation packages to employers. The packages consist of various options such as carpooling, vanpooling or transit. They also recommend transit incentives to be provided to employees. Tri-Met Rideshare representatives are currently working with approximately 250 employers to develop transportation programs for employees. Because of their efforts, over 30 employer-sponsored vanpools are currently operating.

Tri-Met also provides transportation training workshops for company representatives. This year, Tri-Met has trained about 200 individuals as in-house Transportation Coordinators. These individuals represent 90 separate organizations with over 220 locations and approximately 100,000 employees. Transportation Coordinators provide encouragement, assistance and information about ridesharing to fellow employees in addition to their regular job responsibilities.

H. Traffic Flow Improvements. There have been numerous traffic flow improvements in Portland during the last few years. Some of the major improvements are:

1. Computerized traffic signals have been instituted on several major arterials and the Transit Mall. Other areas are being evaluated to see if additional computerization can be accomplished.
2. There is a voluntary program with downtown stores which encourages delivery of retail merchandise in the off-peak hours to help ease peak-hour congestion.
3. Turns have been prohibited at many intersections on the downtown Transit Mall where there is heavy pedestrian traffic. This helps eliminate excessive idling while waiting for pedestrians to cross the street.
4. As has been previously discussed, on-street parking has been banned or limited on several streets in downtown Portland as a measure to help traffic flow.

I. Bicycle Program. Legislation passed in 1971 authorized the expenditure of not less than one percent of the State of Oregon Highway Fund monies for the establishment of bicycle trails and footpaths. The program has resulted in development of approximately 120 km (74 miles) of bikeway in the AQMA. This figure includes bikeways separate from, adjacent to, or shared with roadways as well as sidewalk bikeways.

There is also funding in the annual budget of the City of Portland for constructing curb cuts, upgrading signs,

replacing hazardous sewer grates and providing bypasses around hazardous areas on streets which are not undergoing general repair. The removal of hazardous spots receives first priority for this funding.

In addition, the City of Portland has an ongoing program to promote and encourage the use of bicycles for any trip. The emphasis of the program is to make the street system safer for bicycle riders rather than to provide separate bicycle routes.

Lastly, bicycle routes along the major sections of the Willamette Greenway (a public park along the Willamette River) will be designed over the next two years. The City's goal is to have 100 miles of designated bike routes and capture five percent of work trips by bicycling by 1985.

J. I-5 North Rideshare Program. In cooperation with the City of Portland and other local agencies, a separately funded two-year Rideshare Program has been developed to increase ridesharing and reduce congestion in the North I-5 corridor.

The combination of the comparatively long trip between Portland, Oregon, and Vancouver, Washington, the single bridge which connects them, and the large number of

commuters in the corridor makes the potential for increasing the number of trips made by transit service and other rideshare alternatives very high.

K. Emission Standards for Industrial Sources.

The Department of Environmental Quality has adopted emission standards that require reasonably available control technology be applied to all sources of volatile organic compounds for which EPA has published a control technology guideline. These emission standards are set forth in Oregon Adninistrative Rules 340-22-100 through -220. The sources impacted and the dates compliance with the rules is required are shown in Table 4.3.3-3.

Some of these controls have been implemented ahead of schedule. By 1980, the resultant VOC reductions amounted to 7,310 kilograms/day. The 1980 base emission inventory reflects these reductions.

Between 1980 and 1987, full compliance with the emission standards is expected to result in an additional 15,110 kilograms/day reduction in VOC. These reductions are already included in the 1987 attainment year emission inventory.

The Department of Environmental Quality has requested $49,400 from the Environmental Protection Agency for

TABLE 4.3.3-3

Industrial Source Compliance Schedule

Source Category	Compliance Date
Degreasers	04/01/80
Service Station Loading (Stage I)	04/01/81
Gasoline Delivery Trucks	04/01/81
Bulk Gasoline Terminals	07/31/81
Gasoline Bulk Plants	07/31/81
Dry Cleaners (Perchloroethylene)	01/01/82
Paper and Can Coating	12/31/82
Metal Coating	12/31/82
Cutback Asphalt	04/01/79
Liquid Storage, Second Seals	12/31/81
Printing, Flexographic	07/01/82
Flatwood Coating	12/31/82

enforcement of parts of the rule. The Department also will expend approximately 12 person-months to implement the remaining parts of the rule.

4.3.3.5 Additional Committed Projects

A number of new transportation control measures are being implemented to further reduce mobile source emissions, as well as for their other benefits. Because these measures are not required to attain the federal ozone standard and are not being incorporated into the growth cushion, an estimate of each measure's pollution reduction potential was not determined. The following is a list of programs or projects which are committed and have secure funding. Work has begun on some of the projects with the remainder scheduled to be implemented in the near future.

A. Transit Improvements

In June 1982, Tri-Met will begin implementation of the first phase of its short-range Transit Development Plan (TDP). The first phase includes a fundamental change in routes and schedules in North, Northeast and Southeast Portland. A route grid system will be instituted and the frequency of buses will be greatly improved. It is estimated that these improvements will increase ridership by 25,000 passengers per day in the next two to three years. Tri-Met has budgeted $7,000,000 in their FY 1983 work program to implement the service improvements.

B. Bus Purchase

Tri-Met has purchased 87 articulated buses at a cost of $17,080,000. These buses are an important component of the transit service improvements discussed above.

C. Transit Fare Incentives

Tri-Met will establish a five-zone fare structure in June 1982 which will make transit fares more responsive to trip lengths. In addition larger discounts will be offered to holders of monthly passes and a special reduced fare for off-peak hours will be available to transit riders making intrazonal transit trips. Other transit fare incentives will be examined in the future.

D. Ramp Metering

Ramp metering was established on I-5 North from Portland to Vancouver in January 1981 at a cost of $720,000. The meters have reduced afternoon peak-hour travel times in the corridor by 50 percent and are reducing hydrocarbon emissions by approximately 100 kilograms per day.

E. Traffic Flow Improvements

Numerous traffic flow improvements are being implemented throughout the region. Major projects that will reduce hydrocarbon emissions include:

1. Coliseum Area Traffic Signal and Intertie Improvements. Improves and connects traffic signals at nine locations at a cost of $725,000.

2. Hall Boulevard TSM Projects. Establishes signal interties on Hall Boulevard between Tualatin Valley Highway and Denny Road at a cost of $328,000.

3. Tualatin Bypass. Reroutes travel around the center of Tualatin at a cost of $1,681,000.

4. N.W. 14th/16th and 18th/19th One-Way Couplets. Changes traffic patterns to remove traffic from residential streets and shifts to streets surrounded by commercial and industrial uses at a cost of $656,000.

F. McLoughlin Corridor Rideshare Program

The McLoughlin Corridor Rideshare Program will promote ridesharing in one of the most congested travel corridors in the Portland metropolitan area. The project will implement a number of rideshare actions. Specific actions are still to be finalized, but will probably include highway signs advertising carpooling, mailing rideshare information to 40,000 households and 250 firms within the study area, individual contact with businesses to assist them in setting up rideshare programs, and mass media promotion through newspapers, radio and TV.

The rideshare program has a two-year timeframe from the developmental phase to completion of all project elements. Planning is scheduled to begin in early 1982. The program is being coordinated by Metro in cooperation with Tri-Met.

Funding:

$196,000 from the U.S. Department of Transportation, Federal Highway Administration. (Comprehensive Transportation System Management Assistance Program.)
$65,333 local match.

G. Employer Bicycle Planning Project

The Portland region will be experimenting with a new approach to bicycle promotion. One element is to work with 20 employers, much in the same manner that Tri-Met establishes Employee Rideshare Plans, to establish Bicycle Plans for work commuting. This will be supplemented with a media campaign targeted at encouraging work trip commuting and tolerance of bicyclers from auto drivers. There will also be a survey to define public attitudes towards bicycling and what can be done to help overcome negative attitudes.

Responsibility:

Project Management--Metro
Technical Direction--City of Portland

Schedule:

This is scheduled as a 15-month project which began in January 1982. The primary promotional activities are scheduled for summer of 1982.

Funding:

$174,000 from the U.S. Department of Transportation, Federal Highway Administration. (Comprehensive Transportation System Management Assistance Program Grant.)

H. State Legislation to Encourage Ridesharing

Several pieces of State legislation (SB 52 and SB 54) that eliminate institutional barriers to ridesharing were passed during the 1981 Oregon legislative session. These bills defined ridesharing, eliminated worker's compensation problems by allowing employers to exempt ridesharing from their liability, and clarified insurance coverage on state employees using state-owned vehicles for ridesharing.

I. Shop and Ride Program

Included in the FY 81-82 Tri-Met work program is a regional shop and ride program. Downtown retailers would provide two free bus tickets to shoppers who demonstrate that they had ridden the bus. The tickets would be valid for the trip home and for a return trip to the retail center. The program would be very similar to the parking validation approach that many retail facilities use now. The stores would be able to buy the transit tickets from Tri-Met at a discount. To ensure the program's viability, a commitment is required from 100 merchants before Tri-Met will enact this program, however.

Schedule:

The Tri-Met Board will decide whether or not to fund this program by mid fiscal year 1982.

J. City of Portland Bicycle Parking Program

The City of Portland will install 42 bicycle racks in downtown Portland, each designed for two bicycles. Thirty additional bicycle storage lockers will be placed downtown, at Portland State University, at the Barbur Boulevard Transit Station and within a few neighborhoods. The goal of the new program is to encourage more Portlanders to ride their bikes to work, or to bike to transit stops and finish their commute trip by bus.

The Portland City Council has also approved a $14,650 grant to support the Bicycle Commuter Service, a nonprofit organization promoting bicycling.

A recently approved City of Portland Zoning Code change requires all downtown developers to provide bicycle storage spaces equivalent to five percent of their car parking supply.

Responsibility:

City of Portland Bicycle Program.

Schedule:

All bicycle racks and lockers are scheduled to be installed by April 1982.

Funding:

Federal Highway Administration Grant in the amount of $22,564 plus a local match of $8,588 for a total program cost of $31,152. The program will be self sustaining through the purchase of trip tickets from downtown retailers.

K. Employee Flexible Working Hours Program

This program is designed to assist businesses in implementing effective flex-time programs within their companies. The program is comprised of three main components: 1) promotion of the flex-time concept, 2) institution of flex-time programs at selected demonstration firms, and 3) evaluation of the demonstration programs. Tri-Met will have primary responsibility for the promotional campaign. The City of Portland will administer the remaining parts of the program with consultant assistance.

Schedule:

The program began in January 1982 and will last for an 18-month period.

Funding:

$65,000 from the U.S. Department of Transportation, Federal Highway Administration. (Comprehensive Transportation System Management Assistance Program Grant.)

L. Traffic Signal System Project

The City of Portland has concluded that significant benefits can be gained by interconnecting and efficiently coordinating the existing traffic signal network citywide. Benefits to be derived include:

- reduced fuel consumption
- improved air quality
- reduced traffic accidents
- decreased stops and delay time
- reduced utility and signal maintenance costs
- improved efficiency of the public transit system

Portland is presently developing a five-year traffic signal improvement plan for the City. If met, the goal of a 15 percent reduction in stops and delays would amount to a fuel savings of 1,860 gallons per year per intersection. For the City's present system, this would provide a 1,302,000 gallon per year fuel savings.

Schedule:

The Traffic Signal Plan was completed in 1981, along with a design and implementation schedule for the completion of all recommendations within five years of that date.

Funding:

$2.5 million from the Department of Transportation, Federal Highway Administration.

M. Downtown Portland Air Quality Plan

As a part of an overall Downtown Parking Management Program, the City of Portland took several actions aimed specifically at maintaining and improving the environmental quality of downtown. The Air Quality Plan, as adopted by City Council on October 30, 1980, is incorporated as a major part of the Portland Carbon Monoxide State Implementation Plan. Specific provisions of the downtown plan are described in the CO SIP.

N. City of Portland Employee Travel

The City of Portland's Energy Policy includes as one of its objectives a reduction in the amount of work-related local travel by City employees. The objective calls for a 10 percent reduction in travel compared to 1978 levels.

Responsibility:

The City of Portland Fleet Pool Manager monitors the use of fleet vehicles to determine progress towards the 10 percent goal.

Schedule:

The objective was included as part of the City of Portland Energy Policy which was adopted in 1979.

4.3.3.6 Projects Being Pursued

Numerous additional transportation projects which would have a beneficial impact on air quality are being pursued. These projects are in varying stages of development and have uncertain funding at present; thus, they are not committed projects. All are included in Metro's Transportation Improvement Program (TIP), however, and many will be implemented in the coming years. Following is a list of those measures with a brief description of each.

a. Tri-Met Transit Development Plan: Major service improvements which would double existing transit capacity.

b. Park and Ride Lots: Construction of new park and ride lots in Oregon City, Maywood Park and Lents.

c. Westside Corridor Improvements: $66 million has been reserved for transit expansion and highway improvements on Portland's Westside. Transit options include a light rail transitway or a significant increase in bus service. Highway improvement options include a climbing lane and ramp metering on the Sunset Highway and other traffic flow improvements.

d. McLoughlin Corridor: $23 million has been reserved for transit and highway improvements in the McLoughlin Boulevard corridor. Options include a high occupancy

vehicle lane or preferential treatment for high occupancy vehicles.

e. Ramp Metering: New ramp metering projects on I-5 south from Portland to Tigard and I-205. Longer-range planning is examining ramp metering on I-405 and Highway 217.

f. Slough Bridge: Reconstruction of I-5 Freeway and interchange near Columbia River to improve traffic flow between Oregon and Washington.

g. Hollywood District Improvements: Numerous traffic flow improvements in the Hollywood District including signal interconnects, improved circulation, reduced through traffic on residential streets, and bus shelters and bus lanes.

h. Gateway Area Signal Interconnect: Interconnects signals in the congested Gateway shopping district.

i. Railroad Avenue/Harmony Road: Upgrades to provide a transit trunk route between Milwaukie and Clackamas Town Center transit stations.

j. Beaverton-Hillsdale Highway: Provides for bus pullouts, shelters, and signal interconnect from Hillsdale to Raleigh Hills.

k. Burnside Avenue - Gresham: Widening and signal interconnect from Stark Street to 223rd Avenue.

l. Oregon City Bypass: Expressway bypass of Oregon City's central business district.

m. Yeon/Vaughn: Provides a link for regional traffic between southwest end of Fremont Bridge ramp and St. Helens Road. Improves industrial access and eliminates 11 of 13 existing railroad crossings.

In addition to these specific projects, Metro will be adopting a long-range Regional Transportation Plan (RTP). Included in the RTP are objectives of reducing travel demand on the region's highways by: 1) minimizing travel by single occupant automobiles; 2) minimizing travel during peak hours; and 3) minimizing trip length. Specific goals include having 35 percent of all persons traveling to work by auto in the rideshare mode by the year 2000.

A number of specific programs will be enacted in the coming years to achieve these goals and objectives. The programs could include additional parking management programs, a revised regional bicycle plan, regional flex-time programs and new rideshare programs. All these will help the region attain its many goals, including cleaner air.

4.3.4 RULES AND REGULATIONS

Section 3.1 contains the Oregon Administrative Rules (OAR) adopted by the Environmental Quality Commission to carry out the requirements of the Clean Air Act as promulgated by the U.S. Environmental Protection Agency. The rules that are pertinent to the ozone control strategy for the Portland-Vancouver AQMA are:

* OAR 340-20-220 through -275, the new source review rules;
* OAR 340-20-300 through -320, the plant site emission limit rules;
* OAR 340-22-100 through -220, general emission standards for volatile organic compounds;
* OAR 24-300 through -350, motor vehicle emission control inspection test criteria and standards.

New Source Review Rules

The new source review rules require major new or modified stationary sources locating in a nonattainment area to:

1. Meet lowest achievable emission rates;
2. Demonstrate that the source will comply with the growth increment available or provide emission offsets;
3. Provide an analysis of alternative sites, sizes, production processes and control techniques.

Plant Site Emission Limit Rules

Plant site emission limit rules establish a baseline allowable emission rate for existing emitting volatile organic compounds. These rules do not allow significant growth of stationary source emissions unless a growth margin is available or an offset can be obtained. As a result of these rules, negligible growth in emissions between 1980 and 1987 was assumed for stationary point sources.

General Emission Standards for Volatile Organic Compounds

The emission standards rules fulfill the EPA requirement that reasonably available control technology be applied to all stationary sources emitting volatile organic compounds for which the EPA has issued a control technology guideline.

Inspection/Maintenance

All major urban areas needing an extension beyond 1982 for attainment of the ozone standard are required to implement a vehicle inspection/maintenance program by December 31, 1982. The Oregon inspection/maintenance program has been in mandatory operation since July 1975. The inspection is required for all vehicles registered within the Metro boundary.

Appendix 4.3-8 contains the required information about Oregon's inspection/maintenance program.

4.3.5. REASONABLE FURTHER PROGRESS

The Clean Air Act requires a demonstration that reasonable further progress is being made each year toward the attainment of all air quality standards. Reasonable Further Progress (RFP) is defined as annual incremental reductions in emissions for each pollutant that are sufficient for compliance by the required date. Projected reductions in volatile organic compound emissions are shown in Figure 4.3.3-1. This figure shows anticipated volatile organic compound emissions reductions between 1980 and 1987, based upon the inventory described in Section 4.3.2. The projections conclude that the reduction in volatile organic compound emissions that is needed to meet the federal ozone standard will be achieved by 1987.

4.3.5.1 Annual Report

To monitor RFP, DEQ and Metro will jointly submit a report each July 1 for the preceding calendar year which will comply with the following Environmental Protection Agency requirements:

a. Identification of growth of major new or modified existing sources, minor (less than 25 tons/year) new sources, and mobile sources;
b. Reduction in emissions for existing sources;
c. Update of the emission inventory; and
d. Comparison of air quality monitoring data with the emission inventory.

If ambient air quality data suggests that RFP is not being maintained, Metro and DEQ will examine the emission inventories, meteorological data, and actual ozone concentrations to determine if a problem exists. If it is determined that RFP is not being maintained, a contingency plan will be implemented.

4.3.5.2 Contingency Provision

In the case of the region not being able to demonstrate annual Reasonable Further Progress, a "contingency plan" process to identify and implement additional control measures that will compensate for any unanticipated shortfalls in emission reductions has been established. The initial determination of annual RFP compliance will be made by DEQ. If their determination is that RFP is not being met, they will contact Metro. Metro will review the annual Transportation Improvement Plan (TIP) to see if any projects that were expected to assist in pollution reductions have been delayed or if projects with an adverse effect have been included. (Metro has examined the current TIP and has not identified any adverse projects at this time.) If Metro identifies problems with delays, every effort will be made to bring the projects back on line. If any transportation projects with adverse impacts are identified, they will be delayed while other measures are adopted to make up for the shortfall. There are a number of measures which could be implemented if Reasonable Further Progress is not being achieved. These include

additional stationary source controls, annual inspection/maintenance, and additional transportation control measures. Any new measures required for attainment will be adopted through the consultation of state and local government officials process and public involvement process described in Section 4.3.6, and will become part of a revised ozone SIP.

4.3.5.3 Conformity of Federal Actions

The Regional 1982 TIP has been reviewed and was found to be in conformity with this SIP. Revisions to the 1982 TIP and TIPs adopted in future years will be reviewed by Metro to assure continued conformity.

4.3.6. STATE IMPLEMENTATION PLAN DEVELOPMENT PROCESS

4.3.6.1 Public Involvement

The air quality planning program in the Portland Air Quality Maintenance Area has been a cooperative effort between Metro, DEQ and representatives of other federal, state, and local governments and agencies in both Oregon and Washington. An important aspect of the planning process, however, was the input received from business, industrial, environmental and civic organizations, as well as from concerned citizens.

The Portland Air Quality Advisory Committee has been the focal point of the air quality planning/public involvement effort in the Oregon portion of the AQMA. This committee is a 24-member body composed of representatives from the general public and diverse interests discussed above. The committee's primary mission is to advise DEQ and Metro on air quality control strategies which are both implementable and designed to attain and maintain State and federal ambient air quality standards. (A list of the members of the committee is shown on Table 4.3.6-1.)

The specific charge of the Air Quality Advisory Committee was to review the inter-relationships between planning for total suspended particulates, CO and ozone control strategies and to provide advice on the compatibilities and tradeoffs between actions involved in controlling stationary and transportation sources of these pollutants. In formulating this advice, the

committee took into account many factors besides air quality impacts. These included non-air quality environmental factors, energy consumption, economic and social impacts, and political and institutional feasibility.

The committee met over 50 times during the course of the development of the particulate, carbon monoxide, and ozone control strategies for this region. For the ozone planning process, the committee was instrumental in:

1. Determining which of the 18 Reasonably Available Control Measures were high priority for analysis;
2. Recommending additional control measures for consideration;
3. Helping to resolve interstate differences between Oregon and Washington;
4. Recommending new programs which are committed to or being considered for implementation; and
5. Recommending that a growth cushion policy be implemented in the Oregon portion of the AQMA.

All committee meetings are open to the public. At every meeting, there is an opportunity for interested citizens to comment on the activities of the committee or any other matter pertaining to air quality.

In addition to the activities of the advisory committee, there were numerous other measures which ensured public participation in and awareness of the planning process.

These measures have all been documented to EPA in progress reports and include:

1. An air quality/transportation slide show which explained alternatives available for implementation. The show was shown at over forty meetings of business and civic groups, neighborhood organizations, etc. Feedback on alternative measures was obtained at all meetings;
2. A random sample public opinion survey regarding the various transportation control measures being considered for implementation;
3. Four issues of an air quality newsletter, Air Times, received by over 400 individuals and groups;
4. A brochure outlining in simple terms the air quality problems in the Portland airshed and steps that individuals can take to help abate the problem;
5. Two clean air fairs in a square in downtown Portland;
6. A rideshare conference attended by over 100 firms in the region;
7. Seven television air quality public service announcements.
8. An appearance by Metro and DEQ staff on the the radio talk show "Talkabout"; and
9. Special air quality/transportation workshops with the Portland League of Women Voters and the Oregon Environmental Council.

4.3.6.2 Interstate Coordination

The regional emission inventories incorporated in this plan were jointly developed by the Metropolitan Service District

and the Department of Environmental Quality in Oregon, and the Regional Planning Council of Clark County, Washington. Regional emission inventories adopted in each jurisdiction's plan are thus identical.

Because the air quality modeling projects that the region will be in attainment of the federal ozone standard by 1987 without the implementation of additional control measures, there is no need to allocate emission reduction targets to each state. However, because there is projected to be a 1,700 kilogram/day growth cushion in 1987, an interstate agreement must be reached to establish how the cushion will be allocated (see Section 4.3.3.2). This agreement is now being pursued by concerned jurisdictions in Oregon and Washington through Metro's Bi-State Policy Advisory Committee. This committee is composed of elected officials from jurisdictions in both states. When an agreement is reached, it will be incorporated into this State Implementation Plan.

4.3.6.3 Consultation Among State and Local Officials

The ozone State Implementation Plan proceeds through a review that is specifically designed to involve political jurisdictions within the region from both Oregon and Washington.

First, the plan is reviewed by Metro's Transportation Policy Alternatives Committee (TPAC), composed of representatives of the cities and counties in the metropolitan area, as well as

the Oregon Department of Transportation, the Washington Department of Transportation, Oregon DEQ, the Port of Portland, transit agencies in Oregon and Washington, and the Regional Planning Council of Clark County, Washington.

Once TPAC reviews the recommendations, they will go to Metro's Regional Development Committee. This Committee is composed of six Metro Councilors, who are all locally elected officials. The Committee looks at issues as they relate to land use, public facilities and other matters of regional concern.

The recommendations will also go to Metro's Joint Policy Advisory Committee on Transportation (JPACT) for their review and recommendation. JPACT is charged with transportation and air quality advisory responsibility to the Metro Council and is composed of locally elected Mayors and City Councilors, County Commissioners, Metro Councilors and heads of special districts and State agencies from both Oregon and Washington jurisdictions. (Membership of JPACT is shown in Table 4.3.6-2.)

The recommendations and comments from the Planning Committee are then forwarded to the full Metro Council. This locally elected Council is responsible to a geographic constituency covering the entire urbanized area, maximizing public accountability. The Council adopts the SIP by resolution. Comments from both citizens and local agencies are accepted at the same Council meeting that the plan is considered for adoption.

The Metro Council then submits their adopted plan to the Oregon Environmental Quality Commission. DEQ also reviews the Plan and submits a staff report to the Commission with their recommendation of the Plan and a summary of the Air Quality Advisory Committee's recommendations.

The Environmental Quality Commission has the final responsibility for authorization and adoption of a State Air Quality Plan. Following a review of the Metro Council action, the DEQ recommendation and a public hearing to receive comment, the Commission adopts the final Oregon Ozone State Implementation Plan for the Portland area. The Plan is then forwarded by the Governor to EPA for federal approval.

RB:le

4990B/291

TABLE 4.3.6-1

Membership of the Portland AQMA Advisory Committee

1. City of Portland
2. Metropolitan Service District**
3. Multnomah County
4. Clackamas County
5. Washington County
6. Oregon Department of Transportation
7. Port of Portland
8. Western Oil and Gas Association
9. Associated Oregon Industries (AOI)
10. Portland Chamber of Commerce
11. Oregon Environmental Council
12. League of Women Voters
13. Oregon Lung Association
14. Public-at-Large*
15. Public-at-Large*
16. Public-at-Large*
17. Public-at-Large*
18. Representative from Academic Institution
19. Labor Council Representative
20. Tri-Met (Public Transit Agency)
21. Washington Department of Ecology**
22. Southwest Air Pollution Control Authority**
23. Clark County Regional Planning Council**
24. Oregon Department of Environmental Quality**

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* One each from the City of Portland and Multnomah, Clackamas and Washington Counties.

** Non-voting member.

TABLE 4.3.6-2

JPACT MEMBERSHIP

1. Lloyd Anderson, Executive Director, Port of Portland
2. Bob Bothman, Administrator, Oregon Department of Transportation
3. County Executive Donald E. Clark, Multnomah County
   Commissioner Dennis Buchanan (alternate)
4. Commissioner Larry Cole, Cities in Washington County
5. Ed Ferguson, District Administrator, Washington Department of Transportation
6. Commissioner Jim Fisher, Washington County
7. John Frewing, Tri-Met Board
8. Marge Kafoury, Metro Councilor
   Bob Oleson, Metro Councilor (alternate)
9. Corky Kirkpatrick, Metro Councilor
10. Commissioner Robin Lindquist, Cities in Clackamas County
11. Mayor Al Myers, Cities in Multnomah County
12. Councilor Dick Pokornowski, City of Vancouver
    Councilwoman Rose Besserman (alternate)
13. Commissioner Mildred Schwab, City of Portland
    Mayor Frank Ivancie (alternate)
14. Commissioner Robert Schumacher, Clackamas County
15. Commissioner Vern Veysey, Clark County
16. Charles Williamson, Metro Councilor
17. Bill Young, Director, Department of Environmental Quality

Addendum to Section 4.3, Control Strategy for Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) (Oregon Portion) State Implementation Plan Revision for Ozone

The following changes to the text of the above referenced document are proposed in order to incorporate management of a growth cushion policy. The last two paragraphs of Section 4.3.3.2 would be deleted and replaced.

Section 4.3.0.2 Summary

8. The State of Oregon [is proposing to] will implement a growth cushion policy [using a portion] managing 85% (1450 Kg/day) of the 1,700 kilogram per day surplus in volatile organic compound emissions projected in 1987. This policy [would] will allow new industry to locate in the Oregon portion of the AQMA without the requirement of obtaining individual volatile organic compound emission offsets. [Because the growth cushion is available regionwide to the States of Oregon and Washington, an interstate agreement must be reached to establish how the growth cushion will be allocated. This agreement is now being pursued by concerned jurisdictions in both states through Metro's Bi-State Policy Advisory Committee. When an agreement is reached, it will be incorporated into this plan.] The balance of 250 kilogram per day cushion will be available for management by the State of Washington.

Section 4.3.3.2 Growth Allocation Plan

[As two states would be involved in management of VOC emission growth in the airshed, it is necessary to have a firm plan on how growth will be managed to prevent over allocation of the airshed. There are various options for allocating a growth cushion. One would be to allow new sources to locate in either Oregon or Washington on a first come, first served basis. Another would be to allocate a portion of the growth cushion to each state on a fair share basis based on a formula which both states can agree to.

An interstate agreement is now being pursued by concerned jurisdictions in both Oregon and Washington, through Metro's Bi-State Policy Advisory Committee. When an agreement is reached, it will be incorporated into this plan.]

The surplus hydrocarbon emissions reduction of 1,700 kilogram per day will be managed as a growth cushion, proportioned on an 85%-15% basis (1,450 kilogram per day and 250 kilogram per day) between the State of Oregon and the State of Washington respectively.

The above percentage split between Oregon and Washington is primarily based on the existing and projected 1987 individual state contribution to total AQMA hydrocarbon emissions. In 1980 the Oregon portion of the AQMA contributed 167,190 kilogram per day, while the Washington portion contributed 31,230 kilogram per day of hydrocarbon emissions. The growth cushion allocation percentage also closely approximates the 1980 proportion of population (84% and 16% for Oregon and Washington, respectively) and is in the same proportion as the agreed upon split between the two states for emission control needed to meet the ozone standard.

If the hydrocarbon emissions growth cushions is used up, then new industrial sources of volatile organic compound emissions will have to obtain individual emission offsets unless a new growth cushion is developed.

HH:a
AA1982 (1)

ATTACHMENT 4

VICTOR ATIYEH
GOVERNOR

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

Prepared: March 26,1982
Hearing Date: May 24, 1982

NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT:

Proposed Revision to the State
Clean Air Act Implementation Plan
for the Portland-Vancouver Interstate
Air Quality Maintenance Area (Oregon Portion):
Carbon Monoxide Control Strategy
and Ozone Control Strategy

The Department of Environmental Quality is proposing to amend its State Implementation Plan (SIP) in accordance with the federal Clean Air Act Amendments of 1977. The carbon monoxide control strategy will bring the Portland area into compliance with the carbon monoxide standard by December 31, 1985. The ozone control strategy will bring the Portland area into compliance with the ozone standard by December 31, 1987. The DEQ will submit the strategies adopted by the Environmental Quality Commission to the U.S. Environmental Protection Agency for approval and incorporation into the Oregon State Implementation Plan. A hearing on this matter will be held in Portland on May 24, 1982.

WHAT IS THE DEQ PROPOSING:

Interested parties should request a copy of the complete proposed State Implementation Plan amendments.

Highlights of the carbon monoxide control strategy are:

** The use of the Biennial Auto Inspection Maintenance program, public transit, carpooling, and other ridesharing measures to reduce carbon monoxide emissions.

** The City of Portland has adopted a parking management program with a ceiling on the number of parking spaces in downtown Portland.

Highlights of the Ozone Control Strategy are:

** The use of the Biennial Auto Inspection Maintenance program and the implementation of the Banfield Light Rail Transit project and other measures to reduce Volatile Organic Compound emissions.

** Emission standards for certain existing industrial sources such as paper and can coating operations, perchloroethylene dry cleaners, and flexographic printing.

WHO IS AFFECTED BY THIS PROPOSAL:

The residents of the Portland area and owners of certain commercial and industrial operations that emit vapors leading to ozone formation.

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 May 24, 1982.

Oral and written comments may be offered at the following public hearing:

City	Time	Date	Location
Portland	12:00 p.m. (Noon)	May 24, 1982	DEQ Conference Room Room 1400, Yeon Bldg. 522 SW 5th Avenue

WHERE TO OBTAIN ADDITIONAL INFORMATION:

Copies of the proposed rules may be obtained from:

Howard Harris
DEQ Air Quality Division
Box 1760
Portland, Oregon 97207
503-229-6086

LEGAL REFERENCES FOR THIS PROPOSAL:

This proposal amends OAR 340-20-047. It is proposed under authority of ORS 468.020, 468.295, 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 adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted regulations 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 July 16, 1982 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need and Fiscal Impact Statement are attached to this notice.

HH:a
AA1980 (1)

VICTOR ATIYEH
GOVERNOR

Department of Environmental Quality

522 S.W. 5th AVENUE, BOX 1760, PORTLAND, OREGON 97207

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. G2, April 16, 1982, EQC Meeting

Request for Authorization to Hold a Public Hearing on Proposed Revisions to the State Air Quality Implementation Plan for the Portland-Vancouver Interstate AQMA (Oregon Portion) Regarding Carbon Monoxide Control Strategies

BACKGROUND AND PROBLEM STATEMENT

Background

The Clean Air Act Amendments (CAAA) of 1977 require States to submit plans to demonstrate how they will attain and maintain compliance with national ambient air standards for those areas designated as "nonattainment." Parts of the Portland metropolitan area, chiefly downtown Portland, currently exceed the 8-hour carbon monoxide (CO) standard.

On March 3, 1978, the Environmental Protection Agency (EPA) designated the Oregon portion of the Portland-Vancouver Air Quality Maintenance Area (AQMA) as nonattainment for CO. In accordance with the CAAA, former Governor Straub designated the Columbia Regional Association of Governments (CRAG) as the lead agency responsible for developing the CO State Implementation Plan (SIP) revisions for the Portland AQMA. On December 12, 1978, Governor Straub redesignated the Metropolitan Services District (Metro) as lead agency, effective January 1, 1979, in accordance with the voter approved May 23, 1978, ballot measure which abolished CRAG and transferred its responsibilities and powers to a reorganized Metro.

A CO analysis was performed by Metro which showed that despite the implementation of Reasonably Available Transportation Measures (RATM) the AQMA would not be able to attain the 8-hour CO standard by the Federal deadline of December 31, 1982.

Consequently, on June 8, 1979 the EQC adopted a revised CO SIP for the Oregon portion of the Portland-Vancouver AQMA which requested an extension beyond 1982 for the attainment of the 8-hour CO standard. The Governor submitted the CO plan, containing the extension request, to EPA on June 20, 1979. The extension request obligated the State to prepare and submit a detailed control strategy plan by June, 1982.

EPA printed approval of this request in the Federal Register on June 29, 1980, (45 FR 42278), requiring the State to make certain changes to the New Source Review regulations and to submit a detailed SIP control strategy by the Statutory deadline of June, 1982. EPA also required the plan to show attainment of standards as soon as practicable, but no later than December 31, 1987.

Since the extension request, New Source Review rules have been adopted that satisfy EPA's concerns.

Some of the necessary planning funding for putting together a detailed CO control strategy included State EPA grant money. In passing through the State money, the Department contracted with Metro to deliver a CO attainment plan. Since most of identified CO problem areas beyond 1982 were in the Central Business District of Portland, Metro in turn contracted with the City of Portland, making it responsible for a detailed CO air quality analysis for downtown Portland in 1982 and 1987.

Metro took responsibility for analyzing a potential CO problem spot in Tigard. However, an agreement was struck with the City of Portland giving the City primary responsibility for writing the CO plan for the region. The City began the analysis of transportation control measures in November, 1979, and submitted results of the analysis to EPA on November 26, 1980.

Two committees were formed to assist the City in the initial development of a CO control strategy plan: a) Citizens Advisory Committee with fourteen (14) members; b) Technical Advisory Committee with twenty-four (24) members. The draft CO control strategy plan was reviewed by the Portland Air Quality Advisory Committee in November and December of 1981. The Committee recommended some changes to the plan in a January 7, 1982 letter to Portland City Commissioner Mildred Schwab. The Committee asked the City to: a) establish a policy of encouraging alternatives to the automobile in the conduct of City business; b) revise and strengthen the documentation on Reasonable Further Progress; c) consider specific parking management strategies such as increasing parking meter rates from 25 cents to 50 cents, subsidizing City employe bus passes, and studying the extent to which free parking is provided to downtown employes.

As a result of those recommendations, some changes were made and incorporated into the final plan document accepted by the Portland City Council. Final control strategies for inclusion in the CO SIP were approved by the Portland Air Quality Advisory Committee.

The Portland City Council passed a resolution endorsing the plan on January 13, 1982. The Metro Council adopted the plan on February 25, 1982.

Problem Statement

In order to submit an adopted SIP revision to EPA by July, 1982, the hearing process must be authorized at the April EQC meeting.

Authority for the Commission to Act

ORS Chapter 468, Section 020 gives the Commission authority to adopt necessary rules and standards; Section 295 authorizes the Commission to establish air quality standards for the State; Section 305 authorizes the Commission to prepare and develop a comprehensive plan. Attachment 1 contains the Statement of Need for Rulemaking and the Fiscal and Economic Impact Statement.

ALTERNATIVES AND EVALUATION

The main body of the proposed CO SIP document is appended to this report in Attachment 2. This section of the report covers the essence of what the proposed SIP revision will contain. The detailed, revised CO analysis, which began after the June, 1979 CO SIP revision submittal, focused on two identified problem areas: 1) Tigard; and 2) downtown Portland. The revised analysis determined that CO concentrations in Tigard in 1982 actually would be lower than the 8-hour standard (refer to SIP, Section 4.2.3.4) and thus, no control strategy was needed for Tigard.

A detailed subarea study was conducted for downtown Portland. The details of the study are documented in the second part of Section 4.2.3.4. The study concluded that maintaining a fixed level of parking in conjunction with a parking management program provided the fastest path to attainment of the 8-hour standard.

The study was conducted on the basis of a design CO concentration of 17.1 mg/m^3, 8-hour average (air quality standard is 10 mg/m^3). This value was determined through a statistical analysis of 1977, 1978, and 1979 8-hour CO concentrations at the DEQ's downtown Central Air Monitoring Station (CAMS). The concentration magnitude represents the third highest level in a three year period.

According to the emissions analysis, a reduction of forty percent (40%) from the 1979 level will be sufficient to attain the 8-hour CO standard by 1985 (refer to graph in the CO SIP, Figure 4.2.5).

The CAAA required analysis of eighteen (18) transportation control measures. The alternatives analysis is documented in the SIP, Section 4.2.3.4.b.4. Measures that were considered ranged from implementing an annual inspection maintenance program to minimizing cold starts. Many of the measures listed by EPA were determined to have minimal impacts on attainment of the 8-hour CO standard. However, seven of the more promising and effective measures have been included in the CO attainment strategy.

The main elements of the CO control strategy are listed below.

1. Continue the Biennial Auto Inspection Maintenance program.
2. Downtown Transit Mall: a) purchase 87 new articulated buses; b) purchase 75 standard coaches.
3. Restore Fareless Square to all hours of the day.
4. Expand bus service on I-5 freeway corridor.
5. Rideshare Programs: a) continue City Carpool permit program for 6-hour parking meters; b) implement McLoughlin Corridor Rideshare program; c) pursue State legislation that would remove institutional barriers to ridesharing.

6. Maintain and manage downtown parking inventory at 40,855 spaces, implemented through the services of a full-time parking manager. This program was adopted by the Portland City Council on October 30, 1980.

Provisions to manage new industrial growth are included in the SIP. The State will administer a New Source Review program. Although a major new source would be subject to offsets, the likelihood of such a source locating in or significantly affecting the nonattainment area of downtown Portland would be very remote.

A Reasonable Further Progress (RFP) line has been established which will be monitored and reported on an annual basis to EPA (refer to CO SIP Figure 4.2-5). Indicators in addition to ambient air data will include downtown traffic volumes and speeds, as well as the number of parking spaces in use. In the event that RFP is not being met, additional control strategies would be pursued.

SUMMATION

1. The Oregon portion of the Portland-Vancouver AQMA has been designated a nonattainment area for carbon monoxide (CO).
2. Metro, as the designated lead agency, was responsible for developing a detailed control strategy plan by July, 1982, which would result in attainment of standards as soon as practicable but not later than December 31, 1987.
3. Carbon monoxide standards are projected to be attained by December 31, 1985 with control strategies consisting of continuation of the Biennial Auto Inspection Maintenance program and increased effectiveness of public transit and alternative modes. A key element in the strategy is the City of Portland's adopted parking management program with a fixed supply of parking spaces in downtown Portland.
4. To manage new industrial growth, the State will administer a New Source Review program.
5. Reasonable Further Progress has been defined for meeting standards attainment and procedures for monitoring and reporting it have been specified.
6. A broadly based Citizens Advisory Committee with 14 members and a Technical Advisory Committee with 24 members oversaw the initial carbon monoxide control strategy development. Final control strategies for inclusion in the plan were approved by the Portland Air Quality Advisory Committee. Resolutions endorsing the plan were passed by the Portland City Council and the Metro Council.

DIRECTOR'S RECOMMENDATION

Based on the Summation, the Director recommends that the EQC authorize a public hearing to receive public testimony on the proposed Carbon Monoxide SIP revision for the Portland-Vancouver Interstate AQMA (Oregon portion).

Bill

William H. Young

Attachments:

1) Statement of Need and Fiscal and Economic Impact Statement
2) Proposed Portland-Vancouver AQMA (Oregon Portion) SIP for CO, 1981
3) Public Hearing Notice

JFK:ahe
(503) 229-6459
March 24, 1982

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

Federal Clean Air Act as Amended 1977 (PL 95-95). ORS Chapter 468, including Section 020 which gives the Commission authority to adopt necessary rules and standards, Section 295 which authorizes the Commission to establish air quality standards for the State, and Section 305 which authorizes the Commission to prepare and develop a comprehensive plan.

Need for the rule

Parts of the Portland metropolitan area, chiefly downtown Portland, currently exceed the federal 8-hour carbon monoxide standard. For a designated non-attainment area that cannot attain standards by December 31, 1982, the Clean Air Act requires submittal of a detailed control strategy plan by July, 1982. The plan must show attainment of standards as soon as practicable, but not later than December 31, 1987. The proposed control strategy brings the area into attainment by December 31, 1985.

Principal documents relied upon

1. Clean Air Act Amendments of 1977, PL 95-95, 8/7/77.

2. DEQ Updated Emission Inventory

3. EPA, State Implementation Plans; Approval of 1982 Ozone and Carbon Monoxide Plan Revisions for Areas Needing an Attainment Date Extension; and Approved Ozone Modeling Techniques; Final Policy and Proposed Rulemaking, Federal Register/Vol. 46, No. 14/Thursday, January 22, 1981/Rules and Regulations.

4. Downtown Parking and Circulation Study, as Adopted by the Portland City Council, October, 1980.

5. Seton, Johnson & Odell, Inc., Portland Parking and Circulation Plan, Air Quality Evaluation, October 15, 1980.

Fiscal and Economic Impact Statement and Impact on Small Businesses

The transportation projects in the plan which would be implemented in the future constitute a very small portion of the funding amount required by the Transportation Improvement Program for the Portland metropolitan area. The listed projects need a total of $2,966,152 from the U. S. Department of Transportation. The local match requirement is $73,921. For comparison, the federal portion of funding for transportation projects in the tri-county area amounts to approximately $112,000,000 for just Fiscal Year 1982.

The first year of the downtown Portland Parking Management Program is budgeted for $56,000, with $28,000 coming from an EPA grant and $28,000 coming from the Portland Development Commission. The City of Portland is committed to providing ongoing funding for a full-time manager in subsequent years.

No direct economic impacts on the private sector have been identified beyond the possibility of a future increase in curb space parking meter rates.

HWHarris:h
229-6086
March 22, 1982

ATTACHMENT 2

METROPOLITAN SERVICE DISTRICT
527 S.W. HALL ST., PORTLAND, OR., 97201, 503/221-1646

METRO

MEMORANDUM

Date: March 25, 1982

To: Howard Harris, DEQ

From: Richard Brandman, Air Quality Program Manager RB

Regarding: Changes for the CO State Implementation Plan

Attached are changes to be incorporated into the Carbon Monoxide State Implementation Plan. These changes are in response to comments from the Environmental Protection Agency.

RB:lmk

Enclosure

CARBON MONOXIDE STATE IMPLEMENTATION PLAN
ERRATA SHEET

p. 14 4.2.3.3 Redefinition of the Non-Attainment Area

(additional language to be added following last sentence)

The boundaries are defined as the west bank of the Willamette River, the Broadway Bridge and Broadway ramp, Hoyt Street, I-405 (the Stadium Freeway), and the Marquam Bridge.

p. 40 CONTROL STRATEGY COMMITMENTS
4.2.4.1 Level of Control Required

(new section)

The carbon monoxide design concentration is 17.1 mg/m^3, eight-hour average, derived through a statistical analysis of data for the years 1977, 1978 and 1979 from the Central Air Monitoring Station in downtown Portland. The design value represents the third highest eight-hour concentration in three years, as per verbal guidance from EPA. The corresponding required emission reduction is approximately 40 percent.

By continuing projects already implemented (Section 4.2.4.2) and by implementing the adopted Downtown Carbon Monoxide Plan (Section 4.2.4.3 (h)), the nonattainment area is projected to be in attainment by December 31, 1985.

p. 44 C. Exclusive Bus and Carpool Lanes

(additional language to be added at the end of the first paragraph)

Because of the construction of the Banfield Light-Rail Transitway and highway improvements, however, the bus and carpool lane will be removed during the summer of 1982.

p. 68 4.2.6.4 Conformity of Federal Actions

(replaces existing language)

U.S. Department of Transportation rules require that the Regional Transportation Plan and Transportation Improvement Program conform with air quality State Implementation Plans. Transportation plans and programs are determined to be in conformance with SIP's if they:

a) reflect reasonable progress in implementing those transportation control measures that are called for in the SIP to meet air quality standards; and
b) do not include actions that would reduce the effectiveness of planned transportation control measures.

To determine conformity, Metro will annually assess the Transportation Improvement Program (TIP) to ensure that it includes those projects which are detailed in this SIP as necessary for attainment of the carbon monoxide standard. Following Metro's review of the Transportation Improvement Program, UMTA and FHWA will make the final determination of conformity.

Attainment of the carbon monoxide standard in Portland is very closely tied to all phases of the City of Portland's Downtown Air Quality Plan. While many of the specific measures called for in the Air Quality Plan are not transportation projects and are thus not included in the Transportation Improvement Program, Metro will annually review the TIP to ensure that it does include those transportation measures called for in the Air Quality Plan. The TIP will also be examined annually to ensure that it does not include projects which would adversely affect those projects which are necessary for attainment of the carbon monoxide standard.

All projects will still be evaluated in accordance with procedures specified in the National Environmental Policy Act. For major projects which require an Environmental Impact Statement, a micro-scale air quality analysis will be performed. If the analysis indicates that the project will contribute to or exacerbate a violation of air quality standards, all practicable mitigation measures will be incorporated into the design of the project. Regardless of the initial conformity finding in the TIP, projects and facilities will comply with all provisions and requirements of the SIP.

p. 78 4.2.7.3 Basic Transportation Needs

(New Section)

The Environmental Protection Agency requires funding and implementation of public transportation measures to maintain mobility where transportation control strategies are implemented. While no additional transportation control strategies are called for in this plan to attain the carbon monoxide standard, the region is continuing its emphasis on high levels of transit and ridesharing as a means of providing mobility to the general public, while helping to relieve congestion on the highway system, reduce pollutant emissions and conserve energy. This is evidenced by the numerous transit and rideshare projects discussed in Sections 4.2.4.2 and 4.2.4.3 of this Plan.

In addition, the region's recommended Regional Transportation Plan through the year 2000 calls for a quality of transit service that is reasonably comparable to alternative modes of travel. Transit ridership, under this Plan, is expected to increase to 3.2 times today's levels, while overall travel demand increases only 1.5 times. An increase in ridesharing for work trips of 1.5 times current levels is also called for in the Regional Transportation Plan. Together, these programs should provide for the basic transportation needs of the Portland metropolitan area's citizens.

RB:lmk
2-25-82
Revised 3-25-82

PORTLAND-VANCOUVER AIR QUALITY MAINTENCE AREA STATE IMPLEMENTATION PLAN FOR CARBON MONOXIDE

1981

PREPARED BY:
CITY OF PORTLAND,
BUREAU OF PLANNING,
TRANSPORTATION SECTION

STATE IMPLEMENTATION PLAN FOR CARBON MONOXIDE

This report was paid for in part by a grant from the U.S. Environmental Protection Agency. Grant funds were provided to the City of Portland from the Metropolitan Service District (Metro).

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4.2.0 PORTLAND-VANCOUVER AIR QUALITY MAINTENANCE AREA (AQMA) STATE IMPLEMENTATION PLAN (SIP) FOR CARBON MONOXIDE

4.2.0.1 Introduction

The Clean Air Act Amendments of 1977 (CAAA) require states to submit plans to demonstrate how they will attain and maintain compliance with national ambient air standards for those areas designated as "non-attainment." The Act further requires these plans to demonstrate compliance with primary standards no later than December 31, 1982. An extension up to December 31, 1987, is possible if the state can demonstrate that despite implementation of all reasonably available control measures the December 31, 1982, date cannot be met.

On March 3, 1978, the Oregon portion of the Portland-Vancouver Interstate AQMA was designated by the Environmental Protection Agency (EPA) as a non-attainment area for carbon monoxide (CO). In accordance with Section 174 of the Clean Air Act Amendments of 1977, former Governor Straub designated the Columbia Regional Association of Governments (CRAG) as the lead agency for the development of the CO State Implementation Plan (SIP) revisions for the Portland AQMA. On December 12, 1978, Governor Straub redesignated the Metropolitan Service District (Metro) as lead agency, effective January 1, 1979, in accordance with the voter approved May 23, 1978, ballot measure which abolished CRAG and transferred its responsibilities and powers to a reorganized Metro.

On June 20, 1979, the Governor submitted a CO plan for the Oregon portion of the Portland-Vancouver AQMA to EPA with a request for an extension beyond 1982 for the attainment of the CO standard.

The EPA printed an approval of this request in the Federal Register on June 24, 1980, (45 FR 42278) with the condition that New Source Review Regulations (OAR 340-20-190 through 197) would be approved by the Department of Environmental Quality (DEQ) within six months (by December 24, 1980) meeting the following conditions:

i) A specific emission offset program with regulations be adopted and submitted.

ii) The rules governing multiple sources under single ownership be modified so as to require that other sources owned by the company applying for a permit be in compliance "with all applicable emission limitations and standards under the Act."

The approval allowed for an extension of the Portland CO attainment date beyond December 31, 1982, but before December 31, 1987, with a specific date to be identified in the alternatives analysis due to EPA on July 1, 1980.

All of the non-attainment problems identified for 1982, with the exception of a single highway section in Tigard, Oregon,

were within the Central Business District (CBD) of the City of Portland. Based on this information, Metro agreed that it would be appropriate for the City of Portland to perform the evaluation of the projected growth in population, employment, traffic conditions and the resulting air quality conditions for downtown Portland in 1982 and 1987.

Metro would evaluate further the projected non-attainment area in Tigard. It was also agreed that the City of Portland should have primary responsibility for writing the CO plan for the region. The City began the analysis of the transportation control measures in November 1979. The results were submitted to EPA on November 26, 1980.

4.2.0.2 Summary of Plan

a. It is estimated that CO motor vehicle emissions represent 95 percent of the total CO emissions generated in the Portland area in 1977. In 1987, 85 percent of the emissions are still projected to be from motor vehicles.

b. The air quality analysis in this SIP revision indicates that a few streets in the CBD of the City of Portland are projected to violate the eight-hour CO ambient air quality standard beyond 1982. By the end of 1987, all streets are projected to be in compliance with the CO standard without new controls. The controls adopted in this plan are projected to bring the region into attainment by 1985.

c. A request to extend the attainment deadline for the CO ambient air quality standards to December 31, 1985, is being included in this SIP revision. The EPA requirements for requesting this extension have been met.

d. A description of previously implemented transportation control measures is included in this SIP revision along with new measures that have been adopted to bring the area into attainment.

e. The analysis of Highway 217 in Tigard demonstrated that there is projected to be no CO problem in Tigard beyond 1982.

f. A redesignation of the boundaries of the CO non-attainment area to the areas actually exceeding standards is included in this SIP revision.

4.2.1 AMBIENT AIR QUALITY

The federal and State CO primary ambient air quality standards related to health effects are: 10 milligrams/cubic meter (mg/m^3), maximum eight-hour average, and 40 milligrams/cubic meter, maximum one-hour average. Both standards are not to be exceeded more than once per year at any monitoring location.

CO air quality standard violations have been recorded at four CO monitoring locations. (Refer to Appendix 4.2-1 for more details.) Table 4.2-1 is a summary of data collected at each site since 1970 indicating the highest and second highest CO concentrations, and Table 4.2-2 shows the number of days per month with eight-hour concentrations greater than the CO air quality standard (10 mg/m^3).

CO air quality has improved substantially since implementation of the Portland Transportation Control Strategy, with the number of health standard exceedances in the downtown reduced by 82 percent between 1971 and 1979. The one-hour CO standard (40 mg/m^3) has not been exceeded at any monitored site since 1971. Second worst day air quality based on the eight-hour standard has shown a 37 percent reduction during the same period.

Table 4.2-1

CARBON MONOXIDE SUMMARY (mg/m^3)*

LOCATION	ANNUAL STATISTICS		1 HOUR AVERAGES		8 HOUR AVERAGES			
	YEAR	GEOMETRIC MEAN	MAXIMUM	2ND HIGHEST	NO. OF DAYS > 10mg/m³	PERCENT	MAXIMUM	2ND HIGHEST
Portland								
718 W Burnside	1970	3.11	50.6	48.3	89		25.5	20.8
(CAMS)	1971	3.47	48.3	41.4	116		22.1	21.8
2614176	1972	3.76	42.6	39.1	120		28.9	27.0
	1973	3.72	39.1	36.8	109		25.6	22.4
	1974	3.06	27.6	27.6	75		18.7	17.8
	1975	1.74	39.1	36.8	51		21.6	21.1
	1976	1.76	34.5	33.3	25		17.2	15.2
	1977	2.80	25.3	25.3	44		17.5	17.4
	1978	2.62	31.0	26.4	36		16.3	15.2
	1979	2.27	31.0	31.0	21		24.1	13.2
	1980	1.68	27.9	23.7	19		13.9	13.4
4112 NE Sandy Blvd.	1973	3.85	32.2	30.0	120		23.4	21.5
Hollywood District	1974	3.08	47.3	33.4	58		25.5	22.0
2614069	1975	2.01	27.6	27.6	39		21.3	19.1
Began 12/72	1976	2.03	23.0	23.0	27		16.6	14.2
	1977	2.46	25.3	24.1	33		17.4	16.5
	1978	2.61	26.4	25.3	39		16.3	16.2
	1979	2.12	25.8	24.2	17		19.7	16.7
	1980	2.21	27.1	22.9	12		14.5	13.4
4th & Alder	1975[2]	-	32.2	25.3	14		14.9	12.7
2614185	1976	2.24	24.1	21.8	32		15.9	14.7
Began 9/75	1977	2.42	23.0	23.0	14		14.9	14.8
	1978	2.13	23.0	20.7	9		13.2	12.4
	1979	1.65	36.8	27.6	5		14.5	13.8
	1980	1.60	26.0	24.9	11		18.9	15.0
1420 NE Halsey	1975[2]	-	23.0	23.0	14		17.8	13.6
2614186	1976	-	28.8	26.4	26		17.6	16.3
Began 10/75	1977	2.06	24.1	23.0	23		15.9	15.7
Discontinued 9/80	1978	1.04	23.0	21.8	19		16.6	16.2
	1979	1.26	23.0	21.8	13		16.8	10.9
	1980	1.02	23.0	15.1	3		13.3	10.5

* milligrams per cubic meter

SOURCE Oregon Department of Environmental Quality; Oregon Air Quality Report 1980

Table 4.2-2

NUMBER OF DAYS PER MONTH WITH 8-HOUR CARBON MONOXIDE CONCENTRATIONS GREATER THAN 10 mg/m^3 (PORTLAND)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	YEAR TOTAL
PORTLAND													
718 W Burnside (CAMS) -- 2614176													
1967	16	7	10	8	1	2	0	3	11	20	14	15	107
1968	17	10	17	8	14	3	4	12	12	24	27	19	167
1969	23	20	15	10	5	5	0	3	10	15	14	-	120
1970	15	9	9	2	1	5	1	2	6	7	12	19	88
1971	16	11	9	6	1	6	2	5	11	15	16	18	116
1972	15	15	12	10	3	5	6	3	11	10	19	11	120
1973	14	10	11	4	4	4	2	3	8	12	21	16	109
1974	7	6	6	6	2	3	1	3	1	9	16	15	75
1975	10	6	1	1	1	3	0	6	1	11	9	2	51
1976	6	1	0	0	0	0	0	1	1	5	2	9	25
1977	5	3	2	0	1	1	0	2	8	7	6	9	44
1978	12	0	5	1	0	0	0	0	2	1	10	5	36
1979	5	2	0	0	0	0	0	0	0	2	3	9	21
1980	4	1	0	0	0	1	0	0	0	2	6	5	19
SW 4th & Alder* -- 2614185													
1972	*	*	*	*	*	0	0	4	2	6	18	21	51
1973	16	16	10	8	9	18	10	19	12	19	18	15	170
1974	4	4	3	6	3	1	3	6	9	13	17	10	79
1975	1	7	1	1	0	0	2	-	3	4	3	5	27
1976	1	1	2	0	0	1	0	0	3	7	8	10	33
1977	8	2	1	1	0	1	0	1	0	0	0	0	14
1978	1	0	0	0	0	0	0	0	0	1	4	3	9
1979	2	1	1	0	0	0	0	0	1	0	0	0	5
1980	1	2	0	0	0	0	0	0	1	2	1	4	11
4112 NE Sandy Blvd -- 2614069													
1972	Station started December 1972											18	18
1973	20	19	11	3	6	2	2	1	7	15	19	15	120
1974	0	7	1	2	0	0	0	2	4	13	14	15	58
1975	8	7	4	0	0	0	0	0	2	7	6	5	39
1976	3	1	0	0	0	0	0	1	0	2	7	13	27
1977	9	3	0	0	0	0	0	1	0	4	7	9	33
1978	11	5	5	0	0	0	0	0	2	1	8	7	39
1979	5	2	0	0	0	0	0	0	0	1	5	4	17
1980	2	1	0	0	0	0	0	0	0	1	2	6	12
1420 NE Halsey -- 2614186													
1975	Station started October 1975									1	4	9	14
1976	1	1	0	0	0	0	0	0	0	2	7	15	26
1977	8	1	0	1	0	0	0	0	0	2	3	8	23
1978	2	0	3	0	0	0	0	0	1	1	5	7	19
1979	6	1	0	0	0	0	0	0	0	0	3	3	13
1980	2	1	0	0	0	0	0	0	Discontinued 9/80				
MEDFORD													
Brophy Building -- 1520119													
1976	Station started December 1976											27	27
1977	20	15	6	5	2	0	22	21	17	22	26	20	176
1978	17	14	18	8	4	4	14	21	16	20	24	24	184
1979	15	5	7	5	2	3	4	13	11	19	22	15	121
1980	9	8	2	0	1	1	1	3	4	7	12	20	68

*Prior to September 1975, site was located at 600 SW 5th (No. 2614066)

SOURCE Oregon Department of Environmental Quality; Oregon Air Quality Report 1980

4.2.2 REGIONAL EMISSION INVENTORY FOR CARBON MONOXIDE

The following methodology was used in 1979 to identify violating links. The CO emission inventory consists of estimates of CO emissions for the base year of 1977 along with projections for the years 1982 and 1987. The following sections describe the methodology used to calculate industrial and area source (except motor vehicles) CO emissions (Section 4.2.2.1) and transportation related CO emissions (Section 4.2.2.2). Section 4.2.2.3 summarizes the emissions on a tons/year basis for the region.

4.2.2.1 Industrial and Area Source (Except Motor Vehicles) Emissions

Industrial and area source CO emissions for the base year (1977) were obtained from DEQ's emission inventory. Emission and activity factors used to develop the base year CO emission inventory were based on the latest available information provided by EPA and other appropriate sources. In accordance with EPA guidelines, all industrial sources having the potential to emit 100 tons per year or more have been included in the inventory. Based upon the 1977 CO emission inventory, industrial and area source (e.g., commercial and residential space heating, open burning, etc.) emissions represented only five percent of total CO emissions within the Oregon portion of the Portland-Vancouver Interstate AQMA.

Growth factors used to project industrial emissions for the years 1982 and 1987 were based upon forecasts of employment developed by the former Columbia Region Association of Governments (CRAG) in A Regional Employment, Population and Household Forecast, (Technical Memorandum #23, April, 1978). Area source (except motor vehicles) CO emission growth was based upon projections of population, households, and where appropriate, employment derived from the above cited CRAG Technical Memorandum.

4.2.2.2 Motor Vehicle Emissions Methodology

A computer modeling technique was used to determine emissions from motor vehicles. The technique requires, as inputs, such parameters as population and employment levels, land use patterns, average vehicle emission data and a network of major roadways. In order to determine the variability of emissions by location within the region, the AQMA was divided into 493 grids where each grid is 2 km by 2 km in size. The modeling technique that was used amounts to a two-step procedure where the first step is the determination of vehicle miles traveled (VMT) on roadways located in each grid. The Urban Transportation Planning System (UTPS) package of transportation models developed by the Urban Mass Transportation Administration (UMTA) was used to make this determination.

The second step is the determination of total daily emissions

for each grid, given its VMT. This was done using the computer program SAPOLLUT which is part of the software package PLANPAC-BACKPAC developed by the Federal Highway Administration.

The inventory is based upon assumptions relative to present and future conditions in three general categories: (1) population, employment and land use patterns, (2) network assumptions, and (3) vehicle emission factors.

No direct forecasts of population and employment levels or land use were made for the specific years 1982 and 1987; rather, projections for the year 2000 were made and by using the base year 1977 data, interpolations were made to estimate conditions for the two future years. In order to determine conditions for the year 2000, a shift-and-share approach was taken in order to estimate future employment in the region. The approach requires a projection of national employment levels and is based on the assumption that any differences between regional and national employment rates that have been observed in the past will continue into the future. With future employment levels in the region determined in this fashion, total population was derived from combined assumptions of family size and age distribution. The entire process is described in detail in A Regional Employment, Population and Household Forecast, published by CRAG in 1978 (Technical Memorandum No. 23).

Growth allocation within the region was based upon such factors as existing land use, vacant available land, accessibility of the vacant available land to the population and employment centers of the region, and availability of transportation systems. The process is described in detail in Second Round Regional Growth Allocation for the CRAG Transportation Study Area Year 2000, published by CRAG in 1978 (Technical Memorandum No. 26).

The population forecasts that were used for this analysis are consistent with, although somewhat higher than, population projections made for the "208" Waste Water Management Plan. The reasons the forecasts are different are several. The first is that the projections used for the transportation plan are four years newer than the "208" numbers and, thus, incorporate the adopted Urban Growth Bundary (UGB) for the region. The transportation projections were also made based on a more sophisticated forecasting methodology, incorporating factors such as vacant available land and accessibility to the vacant land.

A comparison of the population forecasts used in the "208" water quality plan and for transportation planning purposes are shown below for the year 1987. The totals are by county for the Transportaton Study Area, which approximates the urban area surrounding Portland, Oregon and Vancouver, Washington.

County	"208"	Interim II Transportation
Multnomah	595,710	615,239
Washington	273,870	271,127
Clackamas	201,810	222,973
Clark	180,823	202,778
	1,252,213	1,312,117

One should also be aware that the region is currently in the process of adopting new population and allocation forecasts incorporating information from the 1980 census. Preliminary indications are that the region has grown more quickly than anticipated. This new projection will be used in the future for both water quality and transportation planning purposes.

The highway network that the emission inventory for 1977 is based upon consists of an amalgamation of all major and minor arterials in the AQMA. The network for the future years of 1982 and 1987 is similar with the addition of the following major projects in the 1987 network:

Project	Type	Length (km)
Completion of I-205	Six-lane freeway with a proposed busway and bikeway	9.2
Connection of I-505-US 30	Four-lane arterial	3.1

Oregon City Bypass	Arterial	6.2
Banfield LRT	Additonal highway lanes and light-rail lanes	13.0

Vehicle emission factors were based upon the EPA publications Mobile Source Emission Factors for Low Altitude Areas--Final Document (EPA-200/9-78-006 March, 1978). Emission reduction credits for Oregon's biennial motor vehicle inspection/maintenance program were based upon a methodology developed by EPA's Office of Emission Control Technology. Assumptions regarding inputs, e.g., vehicle distributions, hot/cold start ratios, ambient temperature, etc., to motor vehicle emission factors are documented in Appendix 4.2-3.

4.2.2.3 Summary of Carbon Monoxide Emissions

The emissions inventories for the calendar years 1977, 1982 and 1987 are summarized by source category in Table 4.2.-3 below. A detailed emissions inventory is contained in Appendix 4.2-4.

4.2.2.4 Reduction Targets

The emission reduction targets for CO are allocated 100 percent to the transportation sector as opposed to other area sources and industrial sources. This is because almost all of the CO emissions in downtown Portland, which is the only remaining CO violation area in the region, are from transportation sources.

Table 4.2-3

Summary of Carbon Monoxide Emissions (Tons per year)
Within the Oregon Portion of the Portland-Vancouver Interstate AQMA

Source	1977	1982	1987
Industrial and other Area Sources	12,763	14,084	14,857
Motor Vehicles	764,727	429,592	342,361
Woodstoves	27,705	62,044	79,000
Total	805,195	505,720	436,218

4.2.3 GEOGRAPHIC DESCRIPTION OF THE NON-ATTAINMENT AREA

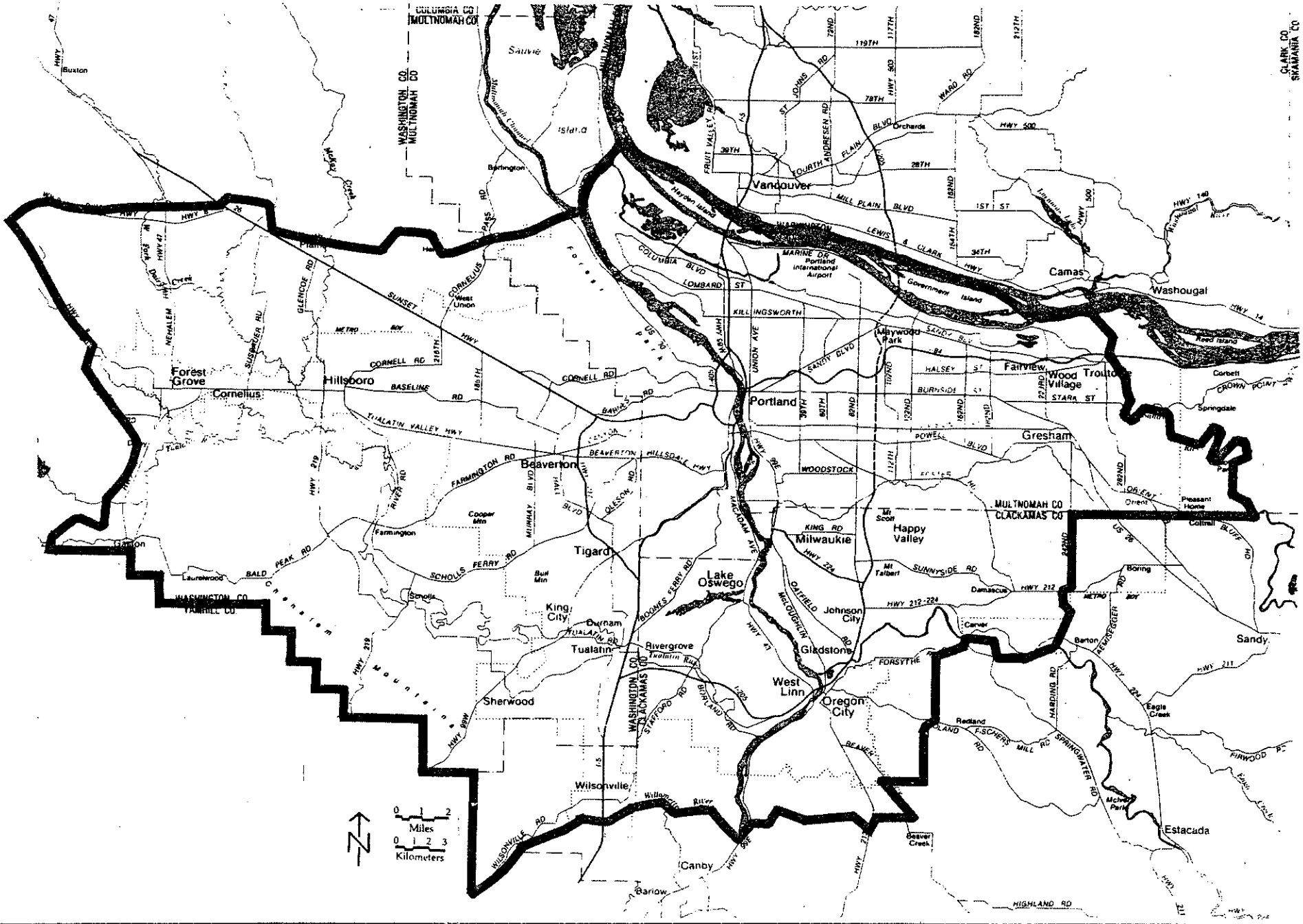
4.2.3.1 Air Quality Maintenance Area

On March 3, 1978, the Oregon portion of the Portland-Vancouver Interstate AQMA was designated as a non-attainment area for CO by the US EPA (43FR 8962). This area is identified in Figure 4.2-1. The area contains the urbanized portions of three counties--Clackamas, Multnomah and Washington--having an estimated combined population of 962,000 persons covering 1800 km^2 (695 mi^2) of land.

Geographically, this area lies at the north end of the Willamette Valley and is almost completely surrounded by mountains and hills. Temperature inversions frequently occur trapping emissions in the valley, resulting in elevated levels of air pollutants.

4.2.3.2 Non-Attainment Area

Figure 4.2-2 indicates the extent of the CO problem in 1982 using emission factors and traffic volumes. The 1979 CO analysis showed that only two problem areas would remain beyond 1982: 1) the Portland CBD and 2) a short segment of Highway 99W in Tigard, Oregon. Subsequent analysis indicates that only the CBD would not attain the eight-hour CO standard by 1982.

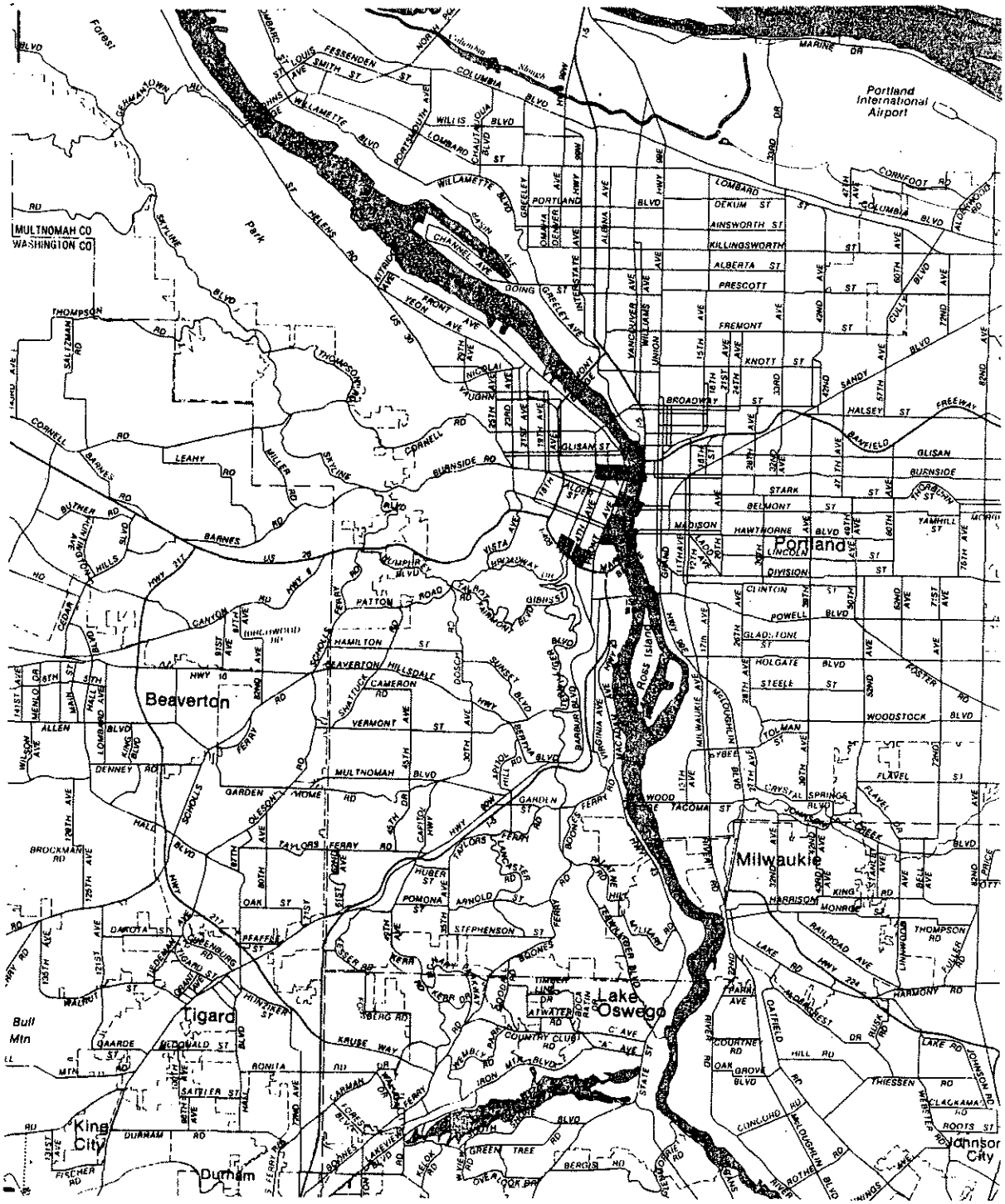


PORTLAND-VANCOUVER AIR QUALITY MAINTENANCE AREA (Oregon Portion)

METRO

FIGURE 4.2-1

FIGURE 4.2-2
Potential Violations of the CO Standard in 1982



Indicates Potential Violation of CO Standard

4.2.3.3 Redefinition of the Non-Attainment Area

The control programs laid out in this SIP address a regionwide strategy for maintaining standards in addition to specific controls within the areas actually exceeding standards. The redefinition of the boundaries of the CO non-attainment area within the Portland AQMA is shown in Figure 4.2-3.

4.2.3.4 Evaluation of Identified Non-Attainment Areas

As part of the regional analysis, each arterial was tested for potential violation of the eight-hour CO standard by developing conservative meteorological conditions typical of second highest measured CO concentrations in 1977. CO concentration is very sensitive to distance from the roadway. The determination of potential violations was based upon the following distances from the edge of the roadway.

Streets in the CBD	12 feet
Arterials	25 feet
Freeways	75 feet

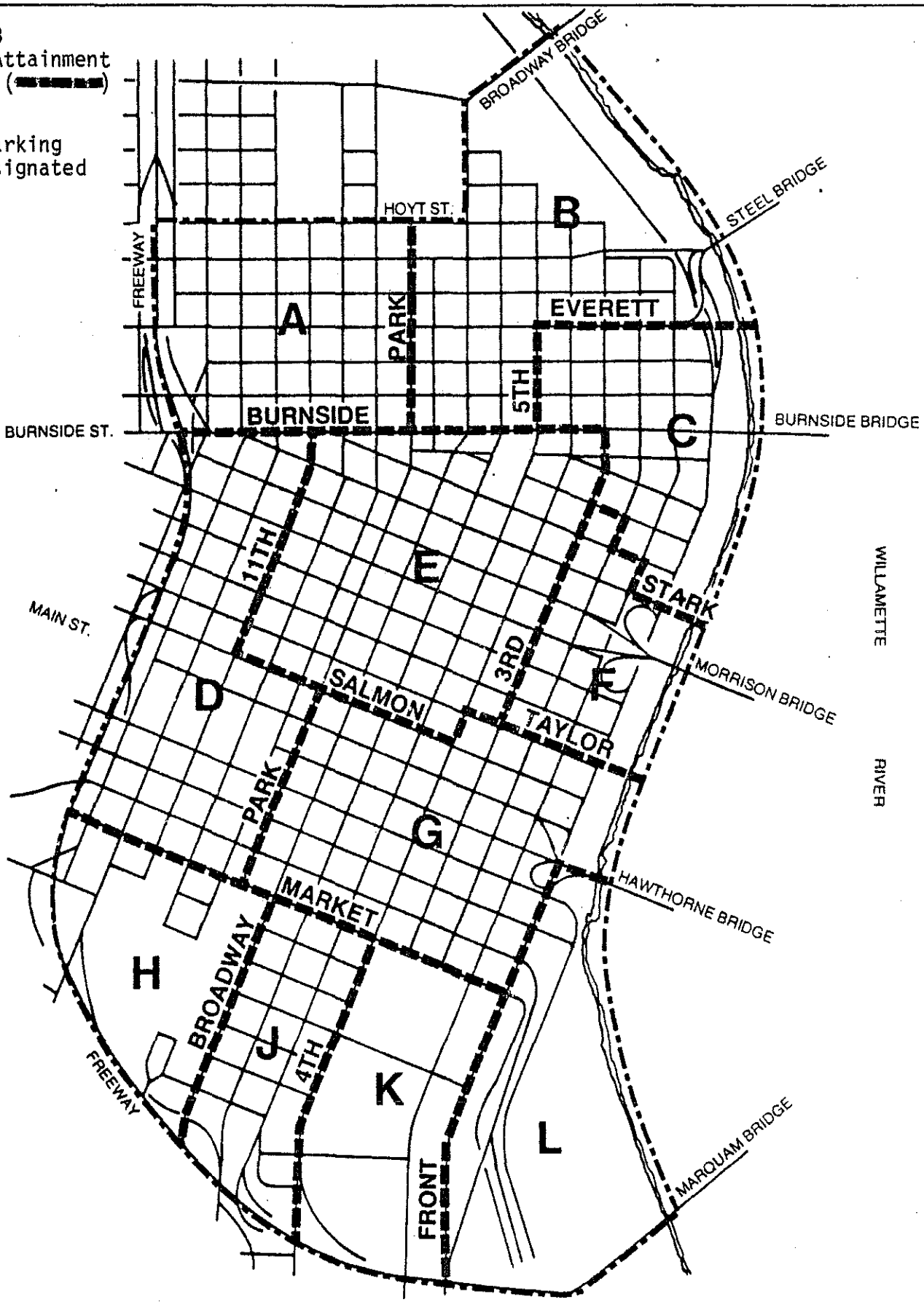
The evaluation methodology is described in detail in Appendix 4.2-2.

a. Tigard

Analysis performed for the 1979 CO SIP showed that a short segment of Highway 99W in Tigard, Oregon would have sufficient traffic volumes and capacity restraints to

Figure 4.2-3
Actual Non-Attainment Area for CO (▬▬▬)

(Downtown Parking Sectors Designated A - L)



SOURCE:

UPDATED DOWNTOWN PARKING AND CIRCULATION POLICY

create the potential for violations of the eight-hour CO standard beyond 1982. Other than in the City of Portland's CBD, this was the only highway segment in the region projected to have this potential.

Because no CO monitoring is done in Tigard, there has been no confirmation that there is an existing problem at this site. Given the 1979 SIP findings, however, Metro performed additional analysis to determine if the computer's projection of non-attainment for the section of Highway 99W appeared to be reasonable.

Consultation with the Oregon Department of Transportation (ODOT) in 1979 indicated that a traffic flow improvement project was scheduled for Highway 99W, including the potential violating link between Hall Boulevard and Highway 217. The project included special left turn bays and traffic signal synchronization. This project has since been completed.

Using actual traffic volumes and speeds measured by ODOT, and CO screening tables from the DEQ, Metro's analysis shows that the traffic volumes on Highway 99W are much lower than the threshold volume that would indicate a potential CO problem. For this reason and because of the traffic flow improvement project already implemented, no further analysis or mitigation is warranted for this

highway section. Documentation of this work is found in Appendix 4.2-13.

b. Portland Downtown Violation Area

Once the work for the regional emission inventory had been completed, specific violation areas were identified. One of these areas was the CBD of the City of Portland. Because of the unique circulation patterns within this area, it was necessary to complete a microanalysis of motor vehicle emissions and the projected increase in vehicles for the downtown area separate from the regional network.

The downtown study was divided into three parts:

1) projecting economic growth of downtown through 1990;
2) projecting increases in vehicles entering the downtown; and
3) assessing the current CO levels and levels in 1982 and 1987.

b.1 Economic Analysis

The economic work was based on a review of downtown Portland since 1974. The year 1974 was chosen as the base year for projecting because major changes in downtown development activities began to occur then.

While office space continued to grow at a substantial rate, downtown also witnessed a large increase in new retail space. At the same time, the City of Portland began a concentrated effort to attract housing downtown, both with new construction and and rehabilitation of older units. At least 2,000 additional hotel/motel rooms have been added. These trends, given prevailing conditions of demand, are expected to represent the future of downtown much closer than previous periods.

Overall, the downtown is projected to absorb approximately four million square feet of additional office space and 500,000 square feet of retail space by 1990 in a variety of locations and types of structures. This implies 27 stories of new office space constructed annually downtown, and significant upgrading of structures and business establishments already in existence there. (See Appendix 4.2-5.) In addition, 1,500 new or rehabilitated dwelling units and 800 motel rooms are also likely to be constructed.

Along with approximately 60,000 office and 8,000 retail employees downtown, roughly 12,000 persons are currently employed in manufacturing, wholesale, medical, education, nonprofit, amusement and recreation, hotel and residential employment categories. Employment in these categories is not expected to grow as fast as office or

retail employment. In fact, some of these land uses will be replaced by offices. In particular, employment in manufacturing and wholesaling, medical uses and education show little prospect of growing downtown. Nonprofit amusement and recreation employment and hotel and residential employment show opportunities for growth, though not at the rate of office employment. A combined growth rate of 1.5 percent was estimated for these categories, adding another 180 employees annually to downtown. Portland is thus projected to average a 3.2 percent annual increase in office employment and a 1.3 percent annual increase in retail employment. Total average new jobs per year should be just under 3,000.

Table 4.2-4

Annual Projected Employment Growth in Downtown Portland by Employment Category (1980-1990)

Emp. Category	1980 Base Employees	Annual Space Growth (sq. ft.)	Space/Emp. Coefficient	Annual Increase in Emp.	Percent Increase in Emp.
Office	60,000	383,000	200	1,915	3.2%
Retail	8,000	50,000	500	100	1.3
Other	12,000	-	-	180	1.5
Total	80,000	433,000		2,095	3.1*

*Weighted

b.2 Transportation Analysis

The transportation analysis concentrated on two primary tasks:

1. Estimating the existing number of vehicles and characteristics of traffic in the downtown area, and
2. Estimating the likely changes in traffic volumes within this area given various policy and plan options.

Existing Characteristics of Downtown Traffic

In addition to determining average daily trips, it was necessary to establish the percent of these trips by hour, travel distance, average speed of travel, average percentage of heavy-duty vehicles for each street and highway link in the study area, location of off-street parking facilities having 100 or more spaces and number of parking starts by hour in those facilities.

There were 802 links in the study area. This data was developed for each link in the study area's street and highway network. Links were defined by nodes, representing intersections or points at which the road changed direction. The CO analysis required that all road links be represented as straight lines; therefore, curved roads had to be divided into two or more segments.

Actual counts for 1978 and 1979 were available for 221 of the area's links. Volumes in the remaining links were estimated by averaging, interpolations, and extrapolations depending on proximity of major generators, turning movements and proportion of through traffic. Average daily trips are listed for each link in Appendix 4.2-6.

In general, the counts for 1978 and 1979 were about the same. November and December had higher traffic volumes than other months. Friday tended to be higher than other weekdays.

The traffic counts also record volumes by hour. The percent of daily traffic in each hour was established from the counts on those links where counts were available. Hourly percentages on the links without counts were interpolated. The resulting hourly pattern code is listed in Appendix 4.2-6 for each link. (The hourly pattern codes are explained in Appendix 4.2-7.) It was found that the highest volumes of traffic usually occur in the 11-hour period between 7 a.m. and 6 p.m.

Travel distances for the links were scaled from available maps and are listed in Appendix 4.2-6.

During November and December of 1979 (the same time period as the collection of air samples in downtown locations), traffic speeds were measured at 18 sites for traffic on one lane at each site. The measured average speeds for the various sites ranged from 13.3 to 24.9 miles per hour. Estimates of average speeds on links other than those where speed measurements were taken were based on signal locations, positions of links relative to freeway ramps and to the center of downtown, and speeds on the nearest similar links. Estimated average speeds for all street and highway links are listed in Appendix 4.2-6. (Speed measurement sites are shown in Appendix 4.2-8.)

The percentage of heavy-duty vehicles was estimated for each street link by adding the percentage of buses to an estimated percentage of trucks (ranging from about four percent trucks on the south side of downtown upward to about seven percent at the north side of downtown). Percentages of heavy-duty vehicles assigned to each link in the study area are listed in Appendix 4.2-6.

The size and location of off-street parking facilities in downtown are recorded by the City Bureau of Traffic Engineering. There were 95 facilities with 100 parking spaces or more in November and December of 1979. These facilities are located by link in Appendix 4.2-9 which

also lists the number of spaces, the assigned number of starts during the 11-hour peak period (7 a.m. - 6 p.m.), the percentage of cold starts, the average speed and the distance of travel within the parking facility. The number of starts and percentage of cold starts were based on the classification and location of the parking facility. Private parking facilities were assumed to have lower turnover rates than public or customer facilities and facilities in the retail core were assumed to have higher turnover rates and shorter parking durations.

Changes in Downtown Traffic Volumes Under Alternative Conditions (for 1987).

Increases in average daily trips associated with each link were projected for 1987 using parking-space by land-use ratios, turnover rates, economic projections and conditions under four possible parking situations. With no measure in place to regulate parking or encourage additional ridesharing, it was estimated that average daily trips to downtown would increase by 60,000. If existing measures were kept in place, the projected increase was only 17,000 trips per day. However, the economic work showed that the effect would be an almost certain stifling of development. A third scenario of increasing the amount of downtown parking, but tightening the requirements by which parking spaces were

appropriated to new development, would result in an estimated 38,500 new trips per day by 1987. A fourth scenario was made based on the assumption of increasing the parking allowed in the downtown by two percent, tightening the requirements for the number of allowable parking spaces in new development projects and adopting other measures to encourage ridesharing. Under this scenario, the increase in trips per day by 1987 was also 17,000.

b.3 Carbon Monoxide Analysis

The next step was an assessment of the resulting CO levels in 1982 and 1987 under these various traffic increases. A short-term CO monitoring program was undertaken at eight locations throughout the CBD (during the worst case CO season, November and December) and results were compared with DEQ sites. Violation levels were measured during this period at several places in downtown. Recorded parameters on days with the highest concentrations were employed to calibrate the computer model used to predict future CO levels. (Appendix 4.2-10.)

The computer program used to predict concentrations in downtown was the model APRAC version 2. Selection of APRAC was partly based on its ability to incorporate the effects of street canyon topography within its

calculations. Both the emission module and the diffusion module were used on this analysis.

The emission module calculates total CO emissions for a specific traffic link. Necessary inputs to this module are:

1. Total average daily traffic (ADT)
2. Percentage of Average Daily Traffic by Hour
3. Link speed
4. Link length
5. Average percentage of heavy-duty vehicles as compared to total volume
6. Parking lots wih 100 or more parking spaces
7. Emission factors calculated from the EPA publication "Mobile Source Emission Factors, Final Document"
8. Distribution of vehicle age and type specific to Oregon
9. Hot and cold-start factors

As part of the emission module, a .25 kilometer grid network was superimposed over the study area. All links or portions of links falling within a specific grid were identified and their emission rates summed, yielding an emission rate for each of the grids in the study area.

The diffusion module uses the results of the emission module to predict the CO concentrations resulting from

upwind sources. Necessary inputs are:

1. Receptor location
2. Street canyon topography based on building height, street width, and both horizontal and vertical distance from the monitoring probe to the nearest traffic lane
3. Direction and wind speed
4. Mixing height
5. Cloud cover

Emission rates from links located upwind from a specific receptor were identified and summed. These total rates were then input to a Gaussian calculation. Additional calculations are used to approximate the localized CO build-up where receptors were located within a street canyon. (Refer to Appendix 4.2-11.)

This system was used to compare the effects on CO build-up under each of the four parking and traffic scenarios described on Table 4.2-5. (Appendix 4.2-12.) The results of this work showed that none of the possible traffic projections brought the downtown into compliance by 1982, but under each scenario, attainment was possible by 1987. There were variations between those two dates as shown on Table 4.2-5.

Table 4.2-5
Projected Compliance Year

By Plan Option

For Each Grid Cell

Grid Cell*	Option 1 (&3)	Option 2	Option 4
303	1982	1982	1982
305	1982	1982	1982
307	1982	1982	1983
308	1982	1982	1982
405	1982	1983	1983
407	1985**	1986**	1986**
504	1982	1982	1982
505	1982	1983	1983
507	1983	1984	1984
508	1984	1985	1985
604	1982	1982	1982
607	1984	1985	1985
608	1982	1982	1982
609	1982	1982	1982
706	1982	1983	1983
All grids in compliance by:	1984	1985	1985

* Grid cells not listed are projected to be in compliance by 1982 under all options.

** Compared to monitoring results, grid cell 407 projected significantly higher. This prediction deleted in final analysis.

Option 1 Maintains parking inventory at or close to current level; implement a parking management plan; tightens parking space per square foot of floor space limits (parking ratios).

Option 2 Eliminates the parking inventory; tightens parking ratio limits.

Option 3 Maintains parking inventory at current level; maintains parking spaces per square foot of new floor space ratios at current level; no parking management plan.

Option 4 Eliminates the parking inventory; maintains or tightens parking ratio limits, no parking management plan.

b.4 Alternatives Analysis

Reasonably Available Control Measures listed in the Clean Air Act as Amended in 1977 were evaluated. Categories that were selected for additional action as a part of the Downtown Carbon Monoxide Plan are starred.

1. Annual Inspection Maintenance (I/M)

Residents of the Portland region are currently required to have their vehicles inspected on a biennial basis. The reduction gained from this program is discussed in more detail in Section 4.2.4. Annual inspection was evaluated but will not be pursued at this time unless it is necessary in order to meet the ozone standard.

*2. Programs for Improved Public Transit

While transit ridership into downtown now captures approximately 40 percent of all work trips and 15 percent of all shopper trips, it was assumed that the new transit measures detailed in Section 4.2.4 would capture 55 percent of all work trips and 20 percent of all shopper trips. Although emission reductions from these measures were not quantified, they would lead to lower emissions.

Because of the parking restrictions, the creation of new jobs in the downtown area (which corresponds to

the boundaries of the non-attainment area) is dependent on an increased level of transit service to the downtown. Transit improvements also provide increased mobility, especially for the elderly, handicapped and transit-dependent population of the region, and reduce fuel consumption.

Because of the benefits, the region has placed tremendous emphasis on public transit programs. This is evidenced by a jump in market penetration (persons who use transit at least twice per month) from 23 percent in 1977 to 28 percent in 1980.

3. Exclusive Bus and Carpool Lanes

Preferential treatment for high-occupancy vehicles has been recommended in the McLoughlin Boulevard corridor. Improvements in the corridor may include an exclusive high-occupancy vehicle (HOV) lane. The decision regarding which projects to implement in the corridor will be made in early 1982. Due to the time required to implement this project, an HOV lane on McLoughlin Boulevard would not assist in bringing the downtown into attainment prior to the requested 1985 deadline.

*4. Areawide Carpool Programs

Portland has had a carpool matching service

regionwide since 1972. In addition, many employers have similar programs within their firms. One area that will be evaluated further will be to prioritize a portion of both publicly and privately-owned spaces in existing downtown lots and garages for car or vanpools.

It was estimated that a three percent reduction in CO emissions would be realized in 1983 and 1984 through some type of program. This would not be sufficient by itself to bring the area into attainment earlier than the 1985 deadline. However, the program would have other benefits such as conserving fuel and will be pursued as a part of the adopted Downtown Carbon Monoxide Plan. (See Section 4.2.4.)

5. Limitations in Use of Road Surfaces

Because of the limited number of streets in the downtown area, further limitations on road surfaces would cause mobility and congestion problems.

Only one street in the downtown area, Park Avenue, has the potential for such action without severe economic and mobility constraints. Plans are to install dividers to discourage through-traffic on this street. Actual construction of this project

will be completed at the same time as the crosstown alignments of light rail (1985). Other than lanes for transit movement mentioned in No. 6 of this section, no other road limitations are planned at this time. The potential air quality impacts of the Park Avenue dividers are too small to quantify.

6. Long-Term Transit Improvements

Construction of a light-rail transit (LRT) line in the Banfield freeway corridor is scheduled to begin in 1982 with completion anticipated in 1985. The light-rail project is anticipated to make substantial contributions towards improving the mobility of residents of Multnomah County and the City of Portland. It will also reduce congestion, reduce fuel consumption and stimulate significant economic development in addition to the environmental benefits of reduced emissions. (See Section 4.2.4.)

In addition to the Banfield light rail project, planning is now underway for either greatly expanded bus service or a light-rail line west of Portland to Beaverton and Hillsboro, and south of Portland to Milwaukie and Oregon City. If light rail is implemented, the effect would be removal of some of the existing diesel buses in downtown. Either

alternative would reduce the dependency on the private automobile for the trips made in these corridors. However, neither of these projects would be implemented in time to show air quality improvements by 1982 or 1987. Since the social, economic, mobility and energy effects of two additional transit-intensive corridors would be positive, the region will continue to vigorously seek funding for these projects.

*7. Programs to Control Parking

Control of parking demonstrated the largest reduction of any of the alternative control measures. Review of four alternative parking policies in downtown (as shown on Table 4.2-6) showed a variation of 12 percent in CO levels in downtown from the different parking programs. Limitations on parking within a confined area such as downtown Portland can result in severe negative economic and mobility impacts unless simultaneous actions are taken to improve transit (such as the transit improvement work discussed in No. 2) and equitable management of the parking suppply for the benefit of all downtown interest. The measures that can alleviate some of these negative effects of parking controls are discussed in more detail in Section 4.2.4.

Table 4.2-6

Elements in Alternative Programs to Control Parking

Parking Option No. 1

- maintains the parking inventory at or close to the current level
- implements a parking management plan
- tightens parking space per square foot of floor space ratios

Parking Option No. 2

- eliminates the parking inventory
- no parking management plan
- eliminates parking space per square foot of floor space ratios

Parking Option No. 3

- maintains present inventory at current level
- no parking management plan
- maintains parking space per square foot of floor space ratios at current level

Parking Option No.4

- increases the parking inventory to meet market demands
- no parking management plan
- equal or tighter parking space per square foot of floor space ratios

8. Park and Ride Lots

An extensive network of park and ride lots already exists in the Portland region and is discussed in Section 4.2.4. Most park and ride lot users are coming into the downtown area. Thus, the greatest pollution reduction will be realized in that geographic area because fewer vehicles are entering the downtown. Even so, the highest expected reduction in CO emissions resulting from the addition of 13 major new lots (4,669 spaces) in the region was one percent in each of 1983 and 1984, which is not sufficient to bring the area into attainment prior to 1985.

Because their emission reduction potential is so low, park and ride lots will not be pursued solely for air quality purposes. Tri-Met, the park and ride lot implementing agency, is still considering major new park and ride lots as part of their long-range planning, however. This program is also discussed in Section 4.2.4.

9. Pedestrian Malls

Portions of Ankeny and Flanders Streets between Second and First Avenues have been proposed as pedestrian malls under private development proposals. Until such time as light-rail alignments

are selected and completed within the downtown area, City of Portland traffic engineers have determined that additional street closures would result in congestion problems and creation of additional CO hot spots. Because of this, the City did not pursue this measure further.

10. Employer Programs to Encourage Carpooling, Vanpooling and Mass Transit

The region has a rideshare program that is targeted towards working with individual employers to establish Employee Rideshare Programs for their firms. These programs have positive effects in terms of energy, mobility, economics and social welfare, as well as reduced air pollution emissions. It was not possible to accurately quantify emission reductions from this program; however, the region intends to aggressively continue to support this effort. Section 4.2.4 provides further details on this measure.

*11. Program to Encourage Use of Bicycles

The City of Portland has an on-going bicycle planning program. It is currently estimated that 1.5 percent of downtown work trips are by bicycle.

A scenario of capturing 3.5 percent of eligible* work trips on bicycles was assessed. If achieved, this level of bicycling would provide a one percent reduction of CO emissions in 1983. Since use of bicycles also improves mobility and energy objectives, the City has included additional bicycling efforts in the Downtown Carbon Monoxide Plan. (See Section 4.2.4.)

*12. Staggered Work Hours (Flex-time)

The advantages of flex-time include diffusion of peak traffic load, reductions in overloaded peak-hour buses, increases in vehicle speeds during peak hours and change in travel modes away from the single-occupant vehicle. These advantages can decrease fuel consumption and increase mobility for flex-time participants.

In May 1980, the Portland City Council adopted a formal flex-time policy for City employees. The City is now completing a survey to see how many employees have benefitted from the policy. Other flex-time programs are incorporated in Employee

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*Eligible work trips were defined as trips less than nine miles (one-way); 3.5 percent is a weighted average which assumes greater participation for shorter work trips.

Rideshare Programs. (See No. 10.)

Analysis showed that a more aggressive flex-time policy in downtown Portland can reduce CO levels by two percent in 1983; therefore, additional efforts were committed to as a part of the Downtown Carbon Monoxide Plan. (See Section 4.2.4.)

13. Road User Charges

Road user charges have been evaluated in the past. Given the storage capacity on the bridges and the arterial system feeding into the downtown from the East Side, road charges on the bridges could create pollution problems on the East Side. They could also have negative effects on fuel consumption due to increased East Side congestion and would affect the economic vitality of the downtown retail sector. Due to these considerations, user charges were not considered as a pollution reduction control measure suitable for Portland.

*14. Parking Surcharge

Parking costs appear to be one of the most effective means of controlling the number of vehicles entering the downtown non-attainment area and, therefore, one of the most effective pollution reduction measures. However, the same negative effects that were laid

out in No. 7 can apply here if special attention is not paid to the mobility and economic consequences of this type of control.

It was estimated that a two to seven percent reduction in CO could be realized from parking cost measures. Therefore, the City has committed to several actions that will assist in controlling parking costs, without creating a blanket surcharge on all downtown parking. The overall effect of the adopted policies, however, will be to increase the cost of long-term parking downtown. (See Section 4.2.4.)

15. Control of Extended Idling

Oregon law allows drivers to turn right on a red light in order to decrease idling time when it is not necessary. In the downtown area, right turns have been completely eliminated in areas where there is high pedestrian traffic to further reduce idling time. No other measures for controlling idling have been identified.

*16. Traffic Flow Improvements

Traffic flow improvements were judged to have good potential as an emission reduction measure for Portland. Traffic flow improvements that were

adopted as part of the Downtown Carbon Monoxide Plan are aimed at improving the circulation for downtown traffic and discouraging through traffic from using downtown streets. (See Section 4.2.4.) These measures will result in decreases in congestion and fuel consumption as well as lower emission.

17. Conversion of Fleet to Cleaner Engines or Fuels

It was determined that significant market penetration of alternative fuels was not possible prior to 1985; so, this measure will not assist in an earlier attainment date. However, efforts are still being made to encourage use of alternative fuels. Some diesel buses will be replaced by electric vehicles as a part of the Banfield light-rail project. (See No. 3.) Conversion of City fleet vehicles to cleaner fuels (both alcohol and electric vehicles) is being pursued on a demonstration basis. These projects, if successful, will reduce fuel consumption as well as lower emissions.

18. Minimization of Cold Start Conditions

Given the warm temperatures year round in the Portland area, no measures that would provide significant CO reductions were identified.

Table 4.2-7

Summary of Control Measure Effectiveness

(% Reduction Achieved)

Year	(%)[1]	Carpool	Park & Ride	Bicycles	Flex-Time	$1 Surcharge	Annual I/M
1982	21	0	0	0	0	0	0
1983	13	3	1	1	2	2-7	10
1984	4	3	1	1	2	2-7	10

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1 Percent emission reduction necessary, in addition to parking limitation, to attain a 9.5 mg/m^3 (10mg/m^3 - 0.5 significance level) CO concentration for the highest recorded hot spot in downtown Portland (Grid 508).

4.2.4 CONTROL STRATEGY COMMITMENTS

4.2.4.1 Projects Already Implemented or Underway (prior 1979)

The region has already taken many major steps to reduce air pollution from transportation-related sources. In response to the requirements of the Clean Air Act of 1970 and the previous SIP, many of the Reasonably Available Control Measures (RACM) specified in the Clean Air Act Amendments of 1977 have already been implemented in the region. The following is a summary of those measures:

a. Inspection/Maintenance. The 1975 Legislative Assembly enacted legislation implementing a mandatory biennial motor vehicle emission control inspection program. The legislation requires that vehicles registered within the Metro boundary, which incorporates the urban area in parts of three counties around Portland, show evidence of compliance with emission control requirements prior to license renewal. The program operated on a voluntary basis during 1974 and 1975 until a mandatory program began on July 1, 1975.

The Oregon DEQ administers the program. DEQ operates seven motor vehicle emission inspection centers with two lanes each and one mobile unit. The general location of these stations are in Southeast Portland, Northeast Portland, Northwest Portland, Milwaukie, Gresham, Tigard and Hillsboro.

DEQ augments its inspection program operations with a fleet inspection program, which allows for licensed fleets to self-inspect their own vehicles. There are currently 45 licensed inspection fleets. To qualify as a fleet, a company or government agency must have approved exhaust gas analysis equipment. Its employees must complete a department operating training session.

The findings from an EPA study indicate that the Portland inspection program achieved mass emission reductions of 34 percent for CO and 24 percent for hydrocarbons for 1975-1977 model year cars over a one-year period. The program is projected to be sufficient to achieve the EPA's minimum requirement of a 25 percent reduction in both CO and hydrocarbons by December 31, 1987.

b. Improved Public Transit. Commitment to public transit is very high in the region. A regional transportation policy states that no new urban freeways will be built and emphasizes much improved transit services.

Tri-Met, the major transit agency in the region, has made substantial improvements in service during the last several years. Since 1969, average workday transit ridership has increased 230 percent. Although slight decreases have been experienced over the past few months, the trend over the past six years shows a major increase in ridership.

Date	Average Daily Tri-Met Ridership
1975	93,000
1976	106,000
1977	116,000
1978	121,000
1979	134,000
1980	145,000
1981 (first six months)	141,000

Some of the major improvements made by Tri-Met since 1975 include:

1. Downtown Transit Mall. The Transit Mall is composed of approximately 22 blocks in downtown Portland, giving public transit exclusive right-of-way on two of three lanes. The project was completed during 1978 and has made it easier for buses to enter and leave the downtown area, thus reducing delays in routing and minimizing cost and congestion, with the resultant reduction of pollution in the downtown area.

2. Bus Purchase. In 1977, Tri-Met purchased 100 new buses. By the fall of 1981, 87 new articulated buses will be delivered with an additional 75 standard coaches due to be purchased in 1982. All new buses acquired by Tri-Met will meet EPA standards for emission control. Tri-Met has also overhauled 250 engines within its existing fleet to meet current (not year of manufacture) EPA emission standards.

3. Bus Shelters. About 700 bus shelters have been installed in the Portland metropolitan area as part of a $1,100,000 UMTA capital grant.

4. Fareless Square. Fareless Square was instituted in Portland in January, 1975. The Square is an area in the CBD where passengers may ride at no charge except between peak congestion hours of 3:00 p.m. - 7:00 p.m. weekdays when passengers pay normal fares. In June of 1982, when Tri-Met introduces its self-service fare system, Fareless Square will again be in effect at all hours. In 1977, Fareless Square was expanded to include all of downtown Portland in an effort to reduce auto vehicle use in the area. The program has been very successful. There are approximately 3,000 free trips being made per average weekday in the zone. Traffic data has shown that there has been no increase in vehicle miles traveled in downtown Portland during the last three years. There is no question that Fareless Square and the Transit Mall have contributed to this trend.

c. Exclusive Bus and Carpool Lanes. In late 1975, a combination carpool and bus-only lane was established on the Banfield Freeway at a cost of approximately $1,700,000. The project also consists of park and ride facilities and a special express transit service. It was

designed to relieve traffic congestion within the corridor and to decrease the use of the automobile for commuting.

During 1978, a regional suburban transit station was developed on Barbur Boulevard. The station has park and ride facilities for over 300 vehicles. The project also includes priority bus treatment and serves as a focal point for transit service to nearby suburban communities.

d. Areawide Carpool Programs. Since 1974, Tri-Met has offered a carpool program that encourages the shared-ride as opposed to single occupant vehicle travel. The program includes a matching service, various incentives and a continuing promotional effort.

An estimated eight percent (or 50,000) of the Tri-County commuting population are commuting in carpools of three or more people to and from work four or more days per week. Approximately 30 percent, or 15,400, of these carpoolers are from within the City of Portland. In addition to three or more person carpools, 68,000 people are sharing rides in groups of two. Of these two groups, approximately 6,000 of these people are carpooling or sharing rides because of the matching service.

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In cooperation with the City of Portland, Tri-Met administers the Downtown Parking Permit Program, providing preferential carpool parking at six-hour meters. A maximum of 500, $25 monthly permits can be sold under the program. In January 1981, 487 permits were issued to 1,554 people.

In cooperation with the City of Portland, Tri-Met administers a preferential on-street Carpool Parking Program in the Lloyd Center area. Fifty-two free carpool spaces were initially reserved for the program; there is currently a waiting list for these spaces and the program may be expanded.

The Rideshare Project's free Carpool Matching Service responded to 3,388 new carpool applicants during 1980. An average match rate of 61 percent has been maintained over the last year.

e. Long-Range Transit Improvements. $190 million in Interstate Transfer funds has been earmarked for the Banfield Corridor Transitway and highway improvements. Current plans are to fund the development of a light-rail line which will link downtown Portland with Gresham. It is planned that the project will include a number of park and ride lots and improved bus feeder service. The project has the approval of all the required jurisdictions.

f. Park and Ride Lots. There are 67 park and ride lots throughout the region being used by over 2,000 vehicles. Of these, 11 are major lots with over 100 stalls. These major lots are well distributed throughout the region in the following locations: Forest Grove, Gresham, Hillsboro, Oregon City, North Portland (Hayden Island), Northeast Portland (at 102nd Avenue and Sandy Boulevard), Southeast Portland (Mall 205), Southwest Portland (at Sunset Boulevard and at Barbur Boulevard), Clackamas Town Center, Washington Square, and the Tannasbourne Shopping Center.

g. Employer Programs to Encourage Carpooling and Vanpooling. Employer programs to encourage car and vanpooling are part of Tri-Met's overall regional ridesharing program. Tri-Met looks at major employers in the region on an individual basis. Then, depending on their size, location and accessibility to transit, they offer various transportation packages to employers. The packages consist of various options such as carpooling, vanpooling or transit. They also recommend transit incentives to be provided to employees.

Tri-Met Rideshare representatives are currently working with approximately 250 employers to develop transportation programs for employees. As a result of the Project's efforts, some of the City of Portland's

major employers having active employee rideshare programs are: FMC, Freightliner, Tektronix, Hyster Corporaton and Multnomah County.

Tri-Met also provides transportation training workshops for company representatives. This year, Tri-Met has trained about 200 individuals as in-house Transportation Coordinators. These individuals represent 90 separate organizations with over 220 locations and approximately 100,000 employees. Transportation Coordinators provide encouragement, assistance and information about ridesharing to fellow employees in addition to their regular job responsibilities.

Over 30 employer-sponsored vanpools are currently operating.

The Rideshare Project is working with Swan Island and Rivergate employment areas, the East Side Industrial Council and the North Industrial area to develop transportation programs.

h. Traffic Flow Improvements. There have been numerous traffic flow improvements in Portland during the last few years. Some of the major improvements are:

1. Computerized traffic signals have been instituted on several major arterials and the Transit Mall. Other

areas are being evaluated to see if additional computerization can be accomplished.

2. There is a voluntary program with downtown stores which encourages delivery of retail merchandise in the off-peak hours to help ease peak-hour congestion.
3. Turns have been prohibited at many intersections on the downtown Transit Mall where there is heavy pedestrian traffic. This helps eliminate excessive idling while waiting for pedestrians to cross the street.
4. As has been previously discussed, on-street parking has been banned or limited on several streets in downtown Portland as a measure to help traffic flows.

i. Bicycle Program. Legislation passed in 1971 authorized the expenditure of not less than one percent of the State of Oregon Highway Fund monies for the establishment of bicycle trails and footpaths. The program has resulted in development of approximately 120 km (74 miles) of bikeway in the AQMA. This figure includes bikeways separate from, adjacent to, or shared with roadways as well as sidewalk bikeways.

There is also funding in the annual budget of the City of Portland for constructing curb cuts, upgrading signs, replacing hazardous sewer grates and providing bypasses around hazardous areas on streets which are not

undergoing general repair. The removal of hazardous spots receives first priority for this funding.

In addition, the City of Portland has an ongoing program to promote and encourage the use of bicycles for any trip. The emphasis of the program is to make the street system safer for bicycles riders rather than to provide separate bicycle routes.

City streets targeted for review and possible action include a bike link between the Hawthorne Bridge and 45th and SE Salmon, a bike route on SE Woodstock, bike signs on SE 26th between Steele and SE Powell, plus the completion of a bike link from the boundary of Beaverton to downtown Portland. In addition, bicycle routes along the major sections of the Willamette Greenway (a public park along the Willamette River) will be designed over the next two years. The City's goal is to have 100 miles of designated bike routes and capture five percent of work trips by bicycling by 1985.

j. Expanded Bus Service on I-5 Corridor. In cooperation with the City of Portland and other local agencies, a separately funded two-year Rideshare Program has been developed to increase ridesharing and reduce congestion in the North I-5 corridor.

The combination of the comparatively long trip between Portland, Oregon, and Vancouver, Washington, the single bridge which connects them, and the large number of commuters in the corridor makes the potential for increasing the number of trips made by transit service and other rideshare alternatives very high.

4.2.4.2 Projects and Programs Identified for Implementation (Since 1979)

Since the region's Carbon Monoxide State Implementation Plan submission in 1979, the following projects and programs have been identified for implementation. Work has been started on some of the projects with the remainder scheduled to begin in the near future. All are proposed for inclusion in the current Carbon Monoxide Plan.

a. McLoughlin Corridor Rideshare Program

Overview:

The McLoughlin Corridor Rideshare Program will emphasize ridesharing in one of the most congested travel corridors in the Portland metropolitan area. The project will test a number of rideshare actions. Specific actions are still to be finalized, but will probably include highway signs advertising carpooling, mailing rideshare information to 40,000 households and 250 firms within the study area, individual contact with businesses to assist them in setting up rideshare programs, and mass media

promotion through newspapers, radio and TV. The region has also committed $24.5 million for physical improvements in the McLoughlin Boulevard Corridor. There is a strong possibility that these improvements will include an exclusive bus lane.

Responsibility:
Metro in cooperation with Tri-Met.

Schedule:
The rideshare program has a two-year timeframe from the developmental phase to completion of all project elements. Planning is scheduled to begin in fall of 1981.

Funding:
$196,000 from the U.S. Department of Transportation, Federal Highway Administration. (Comprehensive Transportation System Management Assistance Program.)
$65,333 local match.

b. Employer Bicycle Planning Project

Overview:
The Portland region will be experimenting with a new approach to bicycle promotion. One element is to work with 20 employers, much in the same manner that Tri-Met establishes Employee Rideshare Plans, to establish Bicycle Plans for work commuting. This will be

supplemented with a media campaign targeted at encouraging work trip commuting and tolerance of bicyclers from drivers. There will also be a survey to define public attitudes towards bicycling and what can be done to help overcome negative attitudes.

Responsibility:

Project Management--Metro

Technical Direction--City of Portland

Schedule:

This is scheduled as a 15-month project to begin in late fall of 1981. The primary promotional activities are scheduled for summer of 1982.

Funding:

$174,000 from the U.S. Department of Transportation, Federal Highway Administration. (Comprehensive Transportation System Management Assistance Program Grant.)

c. State Legislation to Encourage Ridesharing

Overview:

Several pieces of State legislation (SB 52 and SB 54) that eliminate institutional barriers to ridesharing were passed during the 1981 Oregon legislative session. These bills define ridesharing, elminate worker's compensation

problems by allowing employers to exempt ridesharing from their liability and clarify insurance coverage on state employees using State owned vehicles for ridesharing.

Responsibility:

Local Employers.

Schedule:

Effective Immediately.

Funding:

None required.

d. Shop and Ride Program

Overview:

Proposed in the FY 81-82 Tri-Met work program is a regional shop and ride program. Downtown retailers would provide two free bus tickets to shoppers who demonstrate that they had ridden the bus. The tickets would be valid for the trip home and for a return trip to the retail center. It would be very similar to the parking validation approach that many retail facilities use now. The stores would be able to buy the transit tickets from Tri-Met at a discount.

Responsibility:

Tri-Met.

Schedule:

The Tri-Met Board will decide whether or not to fund this program by mid fiscal year 1982.

e. City of Portland Bicycle Parking Program

The City of Portland will install 42 bicycle racks downtown, each designed for two bicycles. In addition, 30 bicycle storage lockers will be placed downtown, at Portland State University, at the Barbur Boulevard Transit Station and within a few neighborhoods. The goal of the new program is to encourage more Portlanders to ride their bikes to work, or to bike to transit stops and finish their commute trip by bus.

The City Council has also approved a $14,650 grant to support the Bicycle Commuter Service, a nonprofit organization promoting bicycling.

A recently approved City Zoning Code change requires all downtown developers to provide bicycle storage spaces equivalent to five percent of their car parking supply.

Responsibility:

City of Portland Bicycle Program.

Schedule:

All bicycle racks and lockers are scheduled to be installed by April 1982.

Funding:

Federal Highway Administration Grant in the amount of $22,564 plus a local match of $8,588 for a total program cost of $31,152. The program will be self sustaining through the purchase of trip tickets from downtown retailers.

f. Employee Flexible Working Hours Program

Overview:

This program is designed to assist businesses in implementing effective flex-time programs within their companies. The program is comprised of three main components: 1) promotion of the flex-time concept, 2) institution of flex-time program at selected demonstration firms, and 3) evaluation of the demonstration programs.

Responsibility:

Tri-Met will have primary responsibility for the promotional campaign. The City of Portland will administer the remaining parts of the program with consultant assistance.

Schedule:

Program will begin October 1, 1981 and last for an 18-month period.

Funding:

$65,000 from the U.S. Department of Transportation, Federal Highway Administration. (Comprehensive Transportation System Management Assistance Program Grant.)

g. Traffic Signal System Project

The City of Portland's Bureau of Traffic Engineering operates a traffic signal control system of approximately 710 traffic signals. Within downtown Portland, 202 intersections are controlled. An additional 368 signals are interconnected by hardware into nine separate subsystems. The remaining 140 signals are not directly interconnected, but many are hand coordinated with adjacent signals. With the introduction of the light rail into the downtown area, the need for changes in existing traffic signalization techniques became obvious. The City has concluded that significant benefits can be gained by interconnecting and efficiently coordinating the existing signal network citywide. Benefits to be derived include:

- reduced fuel consumption
- improved air quality
- reduced traffic accidents
- decreased stops and delay time
- reduced utility and signal maintenance costs
- improved efficiency of the public transit system

Portland is presently developing a five-year traffic signal improvement plan for the City. If met, the goal of a 15 percent reduction in stops and delays would amount to a fuel savings of 1,860 gallons per year per intersection. For the City's present system, this would provide a 1,302,000 gallon per year fuel savings.

Responsibility:
City of Portland, Bureau of Traffic Engineering.

Schedule:
The Traffic Signal Plan will be completed in 1981, along with a design and implementation schedule for the completion of all recommendations within five years of that date.

Funding:
$2.5 million from the Department of Transportation, Federal Highway Administration.

h. Downtown Portland Air Quality Plan

Overview:
As a part of the overall Downtown Parking Management Program, the City of Portland took several actions aimed specifically at maintaining and improving the environmental quality of the area. The Air Quality Plan, as adopted by City Council on October 30, 1980, is

incorporated as a major part of the selected control strategy. The specific provisions of that plan are as follows:

1. Maintain and Manage Downtown Parking Inventory

   (a) At the end of any quarter of any year, the total inventory of parking spaces available for use in downtown will not exceed 40,855. (Parking spaces for residential and hotel uses approved after May 29, 1973, are exempt from this total inventory.) Periodic review of the total inventory available for use in downtown will be made by the City's Parking Manager for the review and consideration of the City Planning Commission and the City Council.

   (b) Approval of new parking will be made based on maximum floor-space ratios established in Section 9 of the Parking and Circulation Policy. The Parking Manager will recommend the number of spaces to be made available for long-term and short-term use, general public use, carpools and bicycle storage. In addition, the Parking Manager will recommend conditions affecting the future use of approved parking.

   (c) Changes in the number and use of existing parking will be monitored and steps taken to coordinate any enforcement of the policy.

(d) An inventory of existing parking, including type and usage, will be made and updated regularly.

(e) Implementation of the parking policy and the Air Quality Plan will be accomplished through the Downtown Parking Management Program.

2. Measures to Improve Downtown Circulation

The City will:

(a) Establish, to the extent possible, separate, complete and effective systems for the movement of automobile traffic, transit vehicles, pedestrians and bicycles, and establish a basis for reducing conflicts among those movements. Access to new off-street parking facilities shall be limited to streets designated in Section 20 of the parking policy.

(b) Actively pursue a program of improvements for road connections outside downtown in order to reduce the need for through traffic to use downtown streets.

(c) Not improve downtown streets in such a way as to increase through traffic.

(d) Develop a program for signing public parking facilities which is consistent throughout downtown, and located on the principal traffic streets.

3. Measures to Encourage the use of Flex-time

The City will:

(a) Initiate a program to encourage increased use of flex-time in downtown. The City's employee program for flex-time will be expanded.

(b) Set up a program involving a private sector consultant contacting major downtown employers in order to inform them of mechanisms for setting up flex-time programs.

4. Measures to Encourage Use of Bicycles

The City will:

(a) Institute a program for including bicycle storage in all new parking facilities.

(b) Designate principal bicycle streets, intended to form a system of principal downtown routes for bicycle riders. Decisions on design treatment and traffic operations on the principal bicycle streets shall give preference to the safety and convenience of bicycle travel.

(c) Develop recommendations on bicycle parking in City garages and other publicly-owned parking facilities.

5. Measures to Control On-Street Parking

The City Will:

(a) Review the rates for curb parking on an annual basis and establish these curb rates to closely equal the hourly short-term rates of the City's garages.

(b) Develop a program for curb parking removal, retention or replacement which maximizes the objectives of the parking policy.

6. Measures to Encourage Ridesharing

The City will:

(a) Assist the Tri-Met Marketing staff in an assessment of the particular requirements of a rideshare program for downtown. Develop guidelines for the Parking Manager for application to new development proposals. The rideshare progam can include:

(1) preferred or subsidized parking for carpools or vanpools;

(2) purchase/lease or sponsorship of vanpools;

(3) transit fare subsidies;

(4) flexible work hours program.

(b) Develop recommendations for adoption by the City Council on reserved public carpool facilities within existing City garages and any additional parking facilities the City should build or acquire.

(c) Examine the feasibility of public off-street parking facilities for exclusive use by carpools.

(d) Require convenient carpool parking within all new developments.

7. Transit Improvement Measures

The City will:

(a) In cooperation with Tri-Met, prepare a program of local transit service improvements.

(b) Designate as non-automobile oriented streets any downtown street that is to be held for future public transit and pedestrian improvements.

(c) Encourage the use of transit for work trips to the downtown by periodically reviewing the rates for City garages and establishing rates that discourage all day parking.

In addition, the City will request an extension of the attainment deadline for meeting CO standards in the downtown to December, 1985; prepare an annual review of the progress in implementing this Air Quality Plan; and review air quality conditions in 1982 to compare predicted CO levels to monitored concentrations and traffic volume trends. Special attention will be given by the Parking Manager to developments wanting to locate

in those areas in the downtown with projected 1982 air quality violations (Grids 407, 508, 608, see attached map). The entire Downtown Parking and Circulation Plan is contained in Appendix 4.2-14.)

Responsibility:

The Plan will be implemented through a full-time Program Manager on staff to the City of Portland, Bureau of Planning.

Schedule:

The Program Manager will begin the program by July 1, 1981.

Funding:

A budget of $56,000 has been acquired for the first year operations; $28,000 from an EPA Air Quality Grant and $28,000 from the Portland Development Commission. This will fund a full-time manager and a part-time assistant. Subsequent years will require only one full-time person and will be funded by the City of Portland with supplemental grant funding as appropriate.

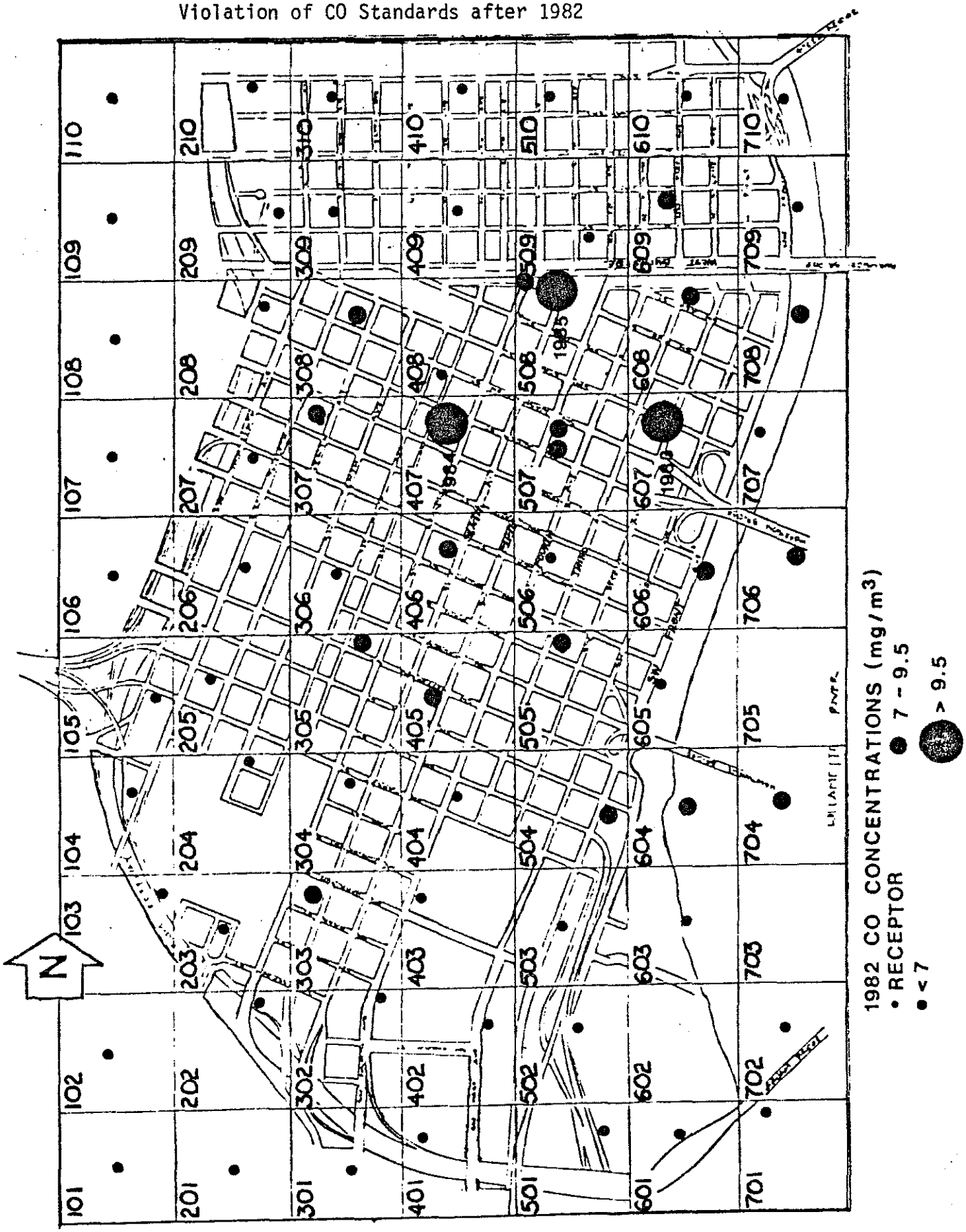
i. <u>City of Portland Employee Travel</u>

Overview:

The City of Portland's Energy Policy includes as one of the objectives a reduction in the amount of work-related

Figure 4.2-4

Areas of Downtown Portland Projected to be in Violation of CO Standards after 1982



SOURCE: Portland Downtown Parking and Circulation Policy

local travel by City employees. The objective designates as the goal a 10 percent reduction in comparison to the base year travel pattern, which is 1978, through monitoring and reporting systems.

Responsibility:

The City of Portland Fleet Pool Manager monitors the use of fleet vehicles to determine progress towards the 10 percent goal.

Schedule:

The objective was included as part of the City of Portland Energy Policy which was adopted in 1979.

4.2.5 RULES AND REGULATIONS

The Oregon Revised Statutes (ORS) 468.275 through .620 authorize the Oregon Environmental Quality Commission to adopt programs necessary to meet and maintain State and federal standards. The mechanism for implementing these programs is the Oregon Administrative Rules.

Oregon Administrative Rule (OAR) 340-31-025 sets the State standard, which in the case of CO is the same as the primary and secondary federal standard. OAR 340-30-190 through 192 sets permitting requirements for stationary sources of CO. Although there may be periodic review and modification to these rules, the State is not proposing any new controls be placed on stationary sources as part of this SIP.

4.2.6 REASONABLE FURTHER PROGRESS; REPORTING PROGRAM INDICATORS; AND CONTINGENCY PLAN

4.2.6.1 Reasonable Further Progress

The Clean Air Act requires a demonstration that Reasonable Further Progress (RFP) is being made each year towards the attainment of all air quality standards. RFP is defined as annual incremental reductions in emissions sufficient to achieve compliance with standards by the required date.

The CO plan submitted to EPA in July 1979 showed an RFP line that would bring the Portland non-attainment area into compliance with national ambient air quality standards by December of 1986. The Downtown Carbon Monoxide Plan that has been adopted by the Portland City Council and is laid out in this plan submittal will bring the area into attainment by December 31, 1985.

4.2.6.2 Monitoring Plan

A monitoring plan to periodically assess the extent to which the transportation measures are actually resulting in meeting this RFP requirement has been established. The primary indicator used to make this judgment will be ambient air quality monitoring. However, the number of downtown parking spaces and vehicles entering the downtown will also serve as indicators.

FIGURE 4.2-5

Carbon Monoxide Emissions vs. Time in the Central Business District of Portland

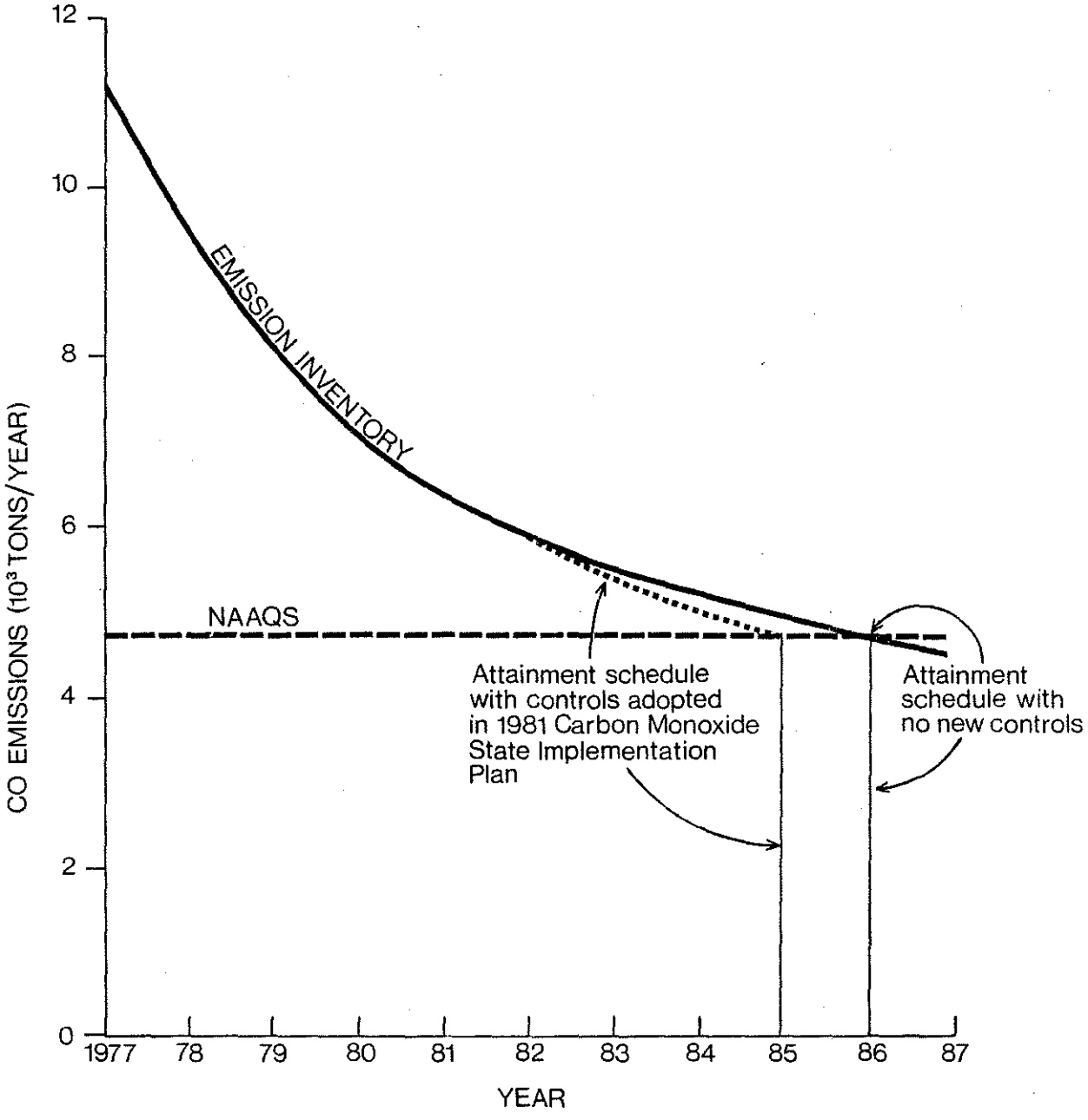
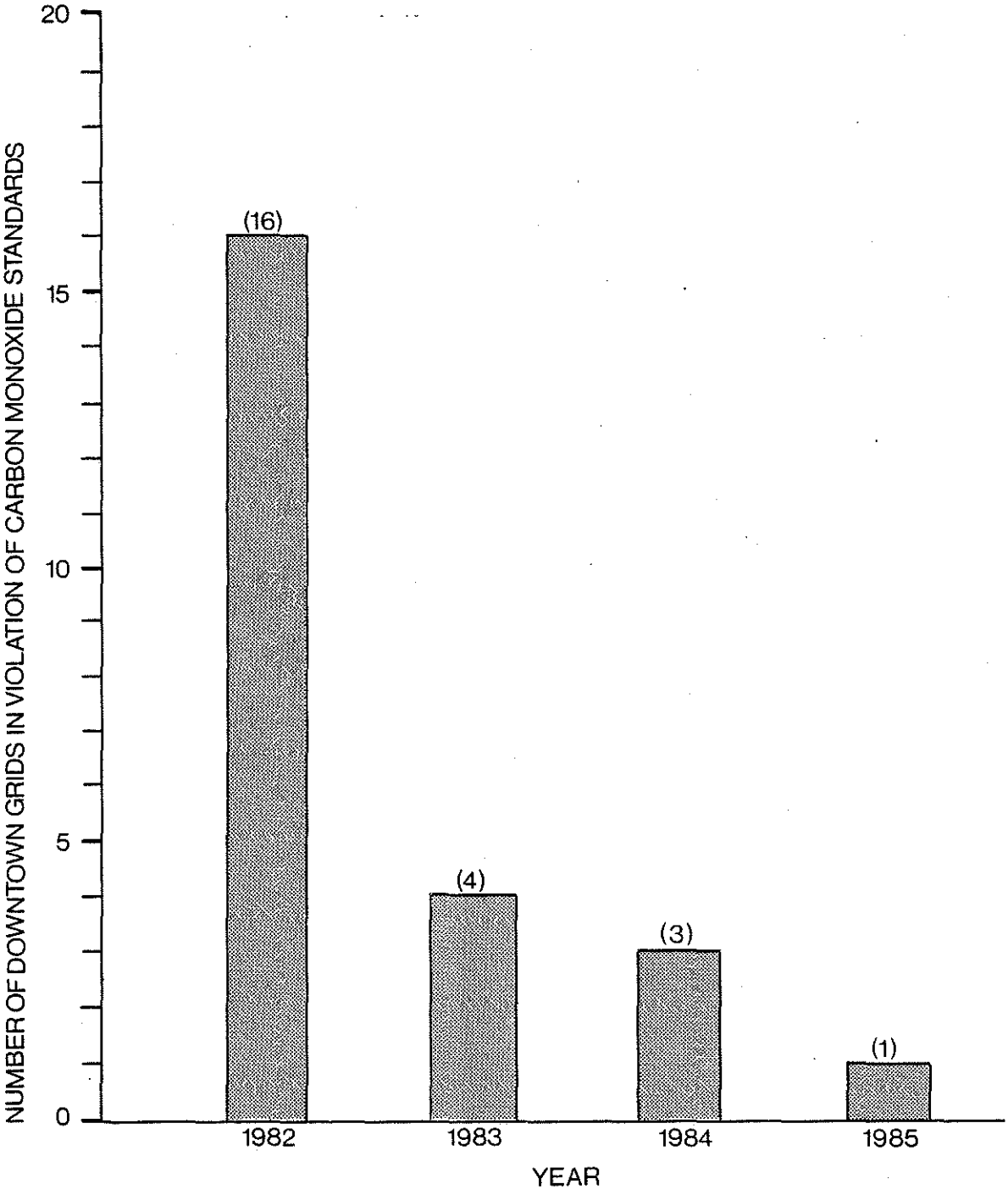


FIGURE 4.2-6

Decreasing Number of Areas with Carbon Monoxide Violations in the Central Business District of Portland (1982-1985)



The City of Portland will submit quarterly reports on the inventory of parking spaces within the downtown area, showing the number of spaces in use, the number of spaces exempt from the inventory and the number of committed parking spaces which have been approved for new development, with anticipated completion dates. The accounting of spaces will be reported by geographic sector.

The ambient monitoring data will be collected by the DEQ through the regional CO monitoring network.

DEQ and Metro will jointly submit a report each July 1 for the preceding calendar year which will comply with the following EPA requirements:

a. Identification of growth of major new or modified existing sources, minor new sources (less than 100 tons/year), and mobile sources;
b. reduction in emissions for existing sources;
c. update of the emission inventory;
d. status of parking inventory;
e. ambient CO measurements; and
f. determination of RFP compliance.

4.2.6.3 Contingency Provision

In the case of the region not being able to demonstrate annual RFP, a "contingency plan" process to identify and implement additional control measures that will compensate for any

unanticipated shortfalls in emission reductions has been established. The initial determination of annual RFP compliance will be made by DEQ. If their determination is that RFP is not being met, they will contact Metro and the City of Portland. Metro will review the Annual Transportation Improvement Plan (TIP) to see if any projects that were expected to assist in pollution reductions have been delayed or if projects with an adverse effect have been included. (The region has examined the current TIP and has not identified any adverse projects at this time.) The City will review the Downtown Carbon Monoxide Plan to see if measures scheduled for adoption have been delayed. If either agency identifies problems with delays, every effort will be made to bring the projects back on line. If any transportation projects with adverse impacts are identified, they will be delayed while other measures are adopted to make up for the shortfall. Any new measures that need to be adopted will become part of a revised SIP and will be adopted through the consultation of State and local government officials, and the public hearing processes described in Section 4.2.7.

4.2.6.4 Conformity of Federal Actions

The Regional 1982 TIP has been reviewed and was found to be in conformity with this SIP. Revisions to the 1982 TIP and TIPs adopted in future years will be reviewed by Metro to assure continued conformity.

4.2.7 STATE IMPLEMENTATION PLAN DEVELOPMENT PROCESS

4.2.7.1 Public Involvement

Two advisory committees were intimately involved in the development of the Portland Downtown Parking and Circulation Policy and Air Quality Plan. One of these committees was made up of representatives from downtown business and neighborhood associations; the other was a technical support group with representatives from various City bureaus and other agencies, such as the Portland Development Commission, Tri-Met, DEQ and Metro.

Between September of 1979 and September of 1980, the Citizens Advisory Committee (Table 4.2-8) met seven times; the Technical Advisory Committee (Table 4.2-9) met 10 times; and the two committees met together an additional six times.

The Committees' recommendations were forwarded to the Portland Planning Commission. This began a series of three public hearings, the first before the Portland Planning Commission, the second before the Portland City Council and the third before DEQ. Based on the contents of the Plan and the majority of testimony presented, each public body accepted and endorsed the Policy and Plan. These documents were then incorporated in the SIP and forwarded to Metro for review.

Metro public review includes the Portland Air Quality Advisory Committee. This committee is a 24-member body whose primary mission is to advise DEQ and Metro on an air quality control strategy which is implementable and is designed to attain and maintain State and federal ambient air quality standards. (A list of the members of the committee is shown on Table 4.2-10.) The specific charge of the committee is to review the inter-relationships between planning for total suspended particulates, CO and ozone control strategies and to provide advice on the compatibilities and tradeoffs between actions involved in controlling stationary and transportation sources of these pollutants. In formulating such advice, the committee takes into account many factors besides air quality impacts. These include non-air quality environmental factors, energy consumption, economic and social impacts, and political and institutional feasibility.

Table 4.2-8

Downtown Portland Parking, Circulation and Air Quality
Technical Advisory Committee

Member	Representing
Don Bergstrom	Traffic Engineer, City of Portland
Richard Brandman	Metropolitan Service District
Larry Dully	Portlant Development Commission
Howard Harris	Department of Environmental Quality
Cynthia Kurtz	Bureau of Economic Development, City of Portland
Tom Matoff	Tri-Met
Doug Obletz	Portland Development Commission
Rod O'Hiser	Bureau of Planning City of Portland
Doug Wentworth	Tri-Met

Table 4.2-9

Downtown Portland Parking and Circulation and Air Quality Plan
Citizens Advisory Committee

Member	Representing
Craig Bayless	The Gilley Company
Don Chapman	Association for Portland Progress
Dean Gisvold	Former Downtown Plan Citizen Advisory Committee; President
Stan Goodell	Building Owners and Managers
Doug Goodman	City Center Parking
Harrison King	Retail Trade Bureau
Jack Kondrasuk	Oregon Environmental Council
Bill Naito	Norcrest China Company
Dick Norman	Historic Landmarks Commission
Leslie Olmstead	Chamber of Commerce
Ray Polani	Citizens for Better Transit
Andy Raubeson	Burnside Consortium
Jessica Richman	Downtown Community Association
Jeanne Roy	Air Quality Advisory Committee

Table 4.2-10

Membership of the Portland AQMA Advisory Committee

1. City of Portland
2. Metropolitan Service District**
3. Multnomah County
4. Clackamas County
5. Washington County
6. Oregon Department of Transportation
7. Port of Portland
8. Western Oil and Gas Association
9. Associated Oregon Industries (AOI)
10. Portland Chamber of Commerce
11. Oregon Environmental Council
12. League of Women Voters
13. Oregon Student Public Interest Research Group (OSPIRG)
14. Public-at-Large*
15. Public-at-Large*
16. Public-at-Large*
17. Public-at-Large*
18. Representative from Academic Institution
19. Labor Council Representative
20. Tri-Met (Public Transit Agency)
21. Washington Department of Ecology**
22. Southwest Air Pollution Control Authority**
23. Clark County Regional Planning Council**
24. Oregon Department of Environmental Quality**

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* One each from the City of Portland and Multnomah, Clackamas and Washington Counties.

** Non-voting member.

There was a concerted effort to make this committee representative of both the community at large and of those with a specific interest in air quality planning. This is an important prerequisite which ensures that the recommended strategies which evolve will have taken into account many divergent points of view. Thus, members of the committee represent the general public (i.e., no specific interest group), industry, environmental groups, the business community citizen organizations, and State and local officials involved in air quality planning from both Washington and Oregon.

All committee meetings are open to the public. At every meeting, there is an opportunity for interested citizens to comment on the activities of the committee or any other matter pertaining to air quality.

4.2.7.2 Consultation Among State and Local Officials

Once the State Implementation Plan is forwarded to Metro, it proceeds through a review that is specifically designed to involve political jurisdictions within the region.

First, the plan is reviewed by Metro's Transportation Policy Alternatives Committee (TPAC), composed of representatives of the cities and counties in the metropolitan area, as well as ODOT, the Washington Department of Transportation (WDOT), DEQ, the Port of Portland and transit agencies in Oregon and Washington.

Once TPAC reviews the recommendations, they will go to Metro's Regional Development Committee. This Committee is composed of six Metro Councilors, who are all locally elected officials. The Committee looks at issues as they relate to land use, public facilities and other matters of regional concern.

The recommendations will also go to Metro's Joint Policy Advisory Committee on Transportation (JPACT) for their review. JPACT is charged with transportation and air quality advisory responsibility to the Metro Council and is composed of locally elected Mayors and City Councilors, County Commissioners, Metro Councilors and heads of special districts and State agencies. (Membership of JPACT is shown in Table 4.2-11.)

The recommendations and comments from the Planning Committee are then forwarded to the full Metro Council. This locally elected Council is responsible to a geographic constituency covering the entire urbanized area, maximizing public accountability. The Council adopts the SIP by resolution. Comments from both citizens and local agencies are accepted at the Council meeting that the plan is considered for adoption.

The Metro Council then submits their adopted plan to the Oregon Environmental Quality Commission. DEQ also reviews the Plan and submits a staff report to the Commission with their recommendation of the Plan and a summary of the Air Quality

Advisory Committee's recommendations.

The Environmental Quality Commission has the final responsibility for authorization and adoption of a State Air Quality Plan. Following a review of the Metro Council action, the DEQ recommendation and a public hearing to receive comment, the Commission adopts the final Oregon Carbon Monoxide Implementation Plan for the Portland area. The Plan is then forwarded by the Governor to EPA for federal approval.

Table 4.2-11

JPACT MEMBERSHIP

1. Lloyd Anderson, Executive Director
   Port of Portland

2. Ernie Bonner
   Metro Councilor

3. Bob Bothman, Administrator
   Oregon Department of Transportation

4. Commissioner Don Clark
   Multnomah County

5. Commissioner Larry Cole
   Cities in Washington County

6. Ed Ferguson, District Administrator
   Washington Department of Transportation

7. Commissioner Jim Fisher
   Washington County

8. John Frewing
   Tri-Met Board

9. Commissioner Robin Lindquist
   Cities in Clackamas County

10. Mayor Al Myers
    Cities in Multnomah County

11. Councilor Dick Pokornowski
    City of Vancouver

12. Commissioner Mildred Schwab
    City of Portland

13. Commissioner Robert Schumacher
    Clackamas County

14. Commissioner Vern Veysey
    Clark County

15. Charles Williamson
    Metro Councilor

16. Bill Young, Director
    Department of Environmental Quality

ATTACHMENT 3

VICTOR ATIYEH
GOVERNOR

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

Prepared: March 26,1982
Hearing Date: May 24, 1982

NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT:

Proposed Revision to the State
Clean Air Act Implementation Plan
for the Portland-Vancouver Interstate
Air Quality Maintenance Area (Oregon Portion):
Carbon Monoxide Control Strategy
and Ozone Control Strategy

The Department of Environmental Quality is proposing to amend its State Implementation Plan (SIP) in accordance with the federal Clean Air Act Amendments of 1977. The carbon monoxide control strategy will bring the Portland area into compliance with the carbon monoxide standard by December 31, 1985. The ozone control strategy will bring the Portland area into compliance with the ozone standard by December 31, 1987. The DEQ will submit the strategies adopted by the Environmental Quality Commission to the U.S. Environmental Protection Agency for approval and incorporation into the Oregon State Implementation Plan. A hearing on this matter will be held in Portland on May 24, 1982.

WHAT IS THE DEQ PROPOSING:

Interested parties should request a copy of the complete proposed State Implementation Plan amendments.

Highlights of the carbon monoxide control strategy are:

** The use of the Biennial Auto Inspection Maintenance program, public transit, carpooling, and other ridesharing measures to reduce carbon monoxide emissions.

** The City of Portland has adopted a parking management program with a ceiling on the number of parking spaces in downtown Portland.

Highlights of the Ozone Control Strategy are:

** The use of the Biennial Auto Inspection Maintenance program and the implementation of the Banfield Light Rail Transit project and other measures to reduce Volatile Organic Compound emissions.

** Emission standards for certain existing industrial sources such as paper and can coating operations, perchloroethylene dry cleaners, and flexographic printing.

WHO IS AFFECTED BY THIS PROPOSAL:

The residents of the Portland area and owners of certain commercial and industrial operations that emit vapors leading to ozone formation.

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 May 24, 1982.

Oral and written comments may be offered at the following public hearing:

City	Time	Date	Location
Portland	12:00 p.m. (Noon)	May 24, 1982	DEQ Conference Room Room 1400, Yeon Bldg. 522 SW 5th Avenue

WHERE TO OBTAIN ADDITIONAL INFORMATION:

Copies of the proposed rules may be obtained from:

Howard Harris
DEQ Air Quality Division
Box 1760
Portland, Oregon 97207
503-229-6086

LEGAL REFERENCES FOR THIS PROPOSAL:

This proposal amends OAR 340-20-047. It is proposed under authority of ORS 468.020, 468.295, 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 adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted regulations 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 July 16, 1982 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need and Fiscal Impact Statement are attached to this notice.

HH:a
AA1980 (1)

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: Director

Subject: Agenda Item No. G(3), April 16, 1982, EQC Meeting

Request for Authorization to Conduct a Public Hearing on Revising the State Implementation Plan Regarding Rules for Equipment Burning Salt Laden Wood Waste from Logs Stored in Salt Water, OAR 340-21-020(2)

Background

Oregon Administrative Rule (OAR) 340-21-020(2) exempts equipment burning salt laden wood (from logs stored in salt water), from particulate concentration and opacity limits of 340-21, where violations are attributable only to salt, until January 1, 1984. This rule requires the Department to hold public hearing before July 2, 1982 "to evaluate the impact of the expiration of this exemption." Weyerhaeuser's mill on Coos Bay is the only source affected by this rule. With salt laden wood, the boiler emissions reach 60+% opacity and 819 tons/yr. of particulate compared to the applicable standards of 40% opacity and 420 tons/year. The company is capable of meeting the Department's particulate emissions standards without further controls if salt emissions are exempted.

Problem Statement

A public hearing needs to be held to meet the rule requirement. Also, Weyerhaeuser's letter of December 22, 1981 asked the Department (and the Commission) to amend the rules to permanently exempt salt, based on their completed monitoring and economic studies and finally an overall particulate emissions limit, including salt, must be established in the rule in order to satisfy EPA.

Authority for the Commission To Act is given in ORS 468.295(3) where the Commission is authorized to establish different rules for different areas of the State for different air contaminant sources.

A "Statement of Need for Rulemaking" is attached to the Public Hearing Notice (Attachment 2).

Evaluation of Weyerhaeuser Reports

Rule 340-21-020(2)(a)(C) required Weyerhaeuser to submit two reports covering an ambient air analysis and an economic evaluation on control options. The Weyerhaeuser reports, and the staff review, indicate that the ambient salt impacts from the boilers are small in comparison to natural sea salt impacts. The Coos Bay airshed has been demonstrated to have no air quality ambient violations. While the coastal area caters to tourists, the industrial area around the mill

is recognized as zoned for heavy-industrial use. Neither the company's file nor recent hearings have received any complaints about the heavy white opacity of Weyerhaeuser's plume. The Department staff has visited mills in Washington and British Columbia where salt from wood-fired boilers is being effectively captured. Weyerhaeuser has estimated control cost for their stack based on control equipment similar to the installation in Washington and British Columbia. Their view is that the costs involved are not worth the minimal environmental benefit, and they have requested a permanent exemption for salt emissions. The only other alternative to further control or exemption is to dry deck logs. Since the mill is designed to handle logs transported to the site by water and since land area for dry decking is not adequate, this alternative used by other mills, is not feasible at the Weyerhaeuser site. Therefore, the Department recognizes a need to have the Commission consider converting a temporary exemption in rule 340-21-020(2), with an expiration date of January 1, 1984, to a permanent exemption.

Evaluation of Baghouse Collecting Salt Emissions

Simpson Timber in Shelton, Washington, has had two baghouses cleaning the salt (and char and ash) from hogged-fuel boilers' flue gas for over six years. The maintenance costs are on the order of two extra men. The baghouses are removed from service three times a year for changing the broken bags.

Scott Paper in Everett, Washington, has one huge baghouse to control emissions from their powerhouse which contains five boilers. The five individual boilers each have their own multiclones. The boilers now burn a mixture of hogged-fuel, 5 - 20% chipped tires, sludge and knots, and oil. Formerly, the hogged-fuel was mostly from logs stored in salt water, so the baghouse was installed to meet a 20% opacity rule. The baghouse was tested emitting 0.02 gr/dscf of TSP (front and back half) including the salt, while it was achieving less than 20% opacity.

Weyerhaeuser's November, 1981 study estimated an installed capital cost of $5,864,000 and an annual maintenance and operating cost of $260,000 for a baghouse for their mill on Coos Bay similar to the ones installed at Shelton and Everett, Washington.

Evaluation of Rock Scrubber Collecting Salt Emissions

B. C. Forest Products in Victoria, British Columbia, has had a dry rock scrubber cleaning the salt (and char and ash) from hogged-fuel boilers' flue gas for five years. The mill redesigned the scrubbers to make them work without plugging. The multiclones ahead of the scrubbers, on one boiler, are still cleaned of salt buildup weekly.

Weyerhaeuser's November, 1981 study estimated an installed capital cost of $4,453,000 and an annual maintenance and operating cost of $136,000 for a rock scrubber similar to the Victoria installation with an added 20,000 volt electric charging element added to it, for their mill on Coos Bay.

Alternatives

1. No Change in Rule, Make Weyerhaeuser Plan to Capture Most of the Salt by January 1, 1984.

   Reasons For:

   Mills at Shelton and Everett, Washington, and at Victoria, British Columbia, have not been granted exemptions from rules because of sea salt in flue gas. They have developed methods of controlling the air pollution, and will continue meeting those rules equivalent to what Weyerhaeuser would have to meet at Coos Bay, 40% opacity and 0.20 gr/dscf TSP (front and back half) corrected to 12% CO_2.

   Reasons Against:

   There are minimal aesthetic and environmental benefits to be gained at Coos Bay or downwind in the forests of southwest Oregon, from having one company spend several million dollars once and about a hundred thousand annually to capture salt, and some char and wood ash, which the installed set of multiclones are presently not capturing. The mills in Victoria, Shelton, and Everett were all at downtown locations in sensitive airsheds which necessitated and justified the control cost.

2. Extend the Rule Exemption from January 1, 1984 to a Longer Period, to January 1, 1987.

   Reasons For:

   Technology may improve and perhaps electrostatic precipitators will be developed to solve the problem more economically or the desire to burn other supplemential fuels like coal, garbage or tires, might justify the economics for adding higher efficienty controls.

   Reasons Against:

   The Department staff has been rehashing this problem since 1975 and Weyerhaeuser desires a final decision once and for all. Certainly, Weyerhaeuser's ability to pay for this electroscrubber had never been in doubt but it's still a lot of money for capturing 550 tons per year of salt where there is no demonstrated need to do so. No ambient standards are being violated and the staff has not found any complaint about emissions from Weyerhaeuser's stack through two public hearings and five years of following this case.

3. Make the Exemption for Salt Permanent.

   Reasons for:

   There is only one stack at one mill in Oregon that now needs this exemption and is applying for it. The environmental benefits of capturing the salt now going out the stack seem small to non-existant in comparison to the costs of capturing it. The proposed rule exempting Weyerhaeuser's mill from the statewide opacity and particulate concentration rules has four features which would protect the Coos Bay area from excessive air pollution: (A) total particulate emissions, including salt, are proposed to be limited; (B) the stack gas must not exceed a darkness of Ringlemann 2; (C) Weyerhaeuser must

source test every other year to check the wear and the operating efficiency of the multiclones; (D) the general opacity and grain loading requirements for boilers are still applicable to the non-salt portion of the exhaust gases.

Reasons Against:

The firm is financially and technically capable of meeting the statewide rule, as the cost is known and the technology demonstrated at three other mills in Shelton and Everett, Washington, and Victoria, British Columbia. The Coos Bay coast nearby is known for the tourist trade. Highway 101 which passes within several hundred feet of this mill's stack is the area's main artery for tourists. While the area around the mill is dedicated to heavy industry, the mill stack is so high that its white plume can be seen for miles.

Evaluation of Revising the State Implementation Plan

EPA has accepted rule 340-21-020(2)'s temporary exemptions from statewide opacity and particulate concentration rules because of sea salt only as expressed in Weyerhaeuser's Air Contaminant Discharge Permit. The company has completed studies which show that meeting the Department's regular particulate emission limits while burning salt-laden fuel would be very expensive with very little environmental benefits.

The staff is requesting authorization to hold a hearing to consider amendments to the State Implementation Plan to make the exemption permanent.

Summation

1. Oregon Administrative Rule 340-21-020(2) requires the Department to hold a hearing by July 1, 1982 to evaluate the impact of the boiler salt emission exemption rule expiring on January 1, 1984.
2. The Weyerhaeuser - Coos Bay Ambient Salt Study concludes that the 550 T/yr. of salt emitted from the Weyerhaeuser stack is pretty well dispersed and it can hardly be distinguished from the much larger quantities of salt entering the area from ocean spray.
3. The Weyerhaeuser Economic Study demonstrated that installing an electro-scrubber or equivalent device to capture enough salt to meet 0.2 gr/scf and 40% opacity would involve considerable expense and corrosion (about 1/2 million capital cost and over $100,000 annual operating cost). Then the captured salt would pose a disposal problem.
4. Other mills in the State of Washington and Province of British Columbia have removed salt from their boiler flue gas because of the proximity of those mills to centers of large populations and/or the tourist trade.
5. The Weyerhaeuser salt plume at Coos Bay neither causes nor contributes to ambient air violations and has not resulted in a single complaint and is not

in a sensitive area. Therefore, the high cost of salt emission control does not appear justified.

6. A hearing should be authorized to take testimony on a rule to permanently exempt Weyerhaeuser from removing salt from the flue gas of their mill stack on Coos Bay and to amend the State Implementation Plan.

Director's Recommendation

Based on the Summation, it is recommended that the Commission authorize a public hearing to revise OAR 340-21-020(2) concerning boilers out of compliance because of salt and to consider the proposed amended rules for adoption as a revision to the State Implementation Plan.

Bill

William H. Young

Attachments:

1. Proposed Rules Change in OAR 340-21-020(2)
2. Notice of Public Hearing and Statement of Need

JFK:ahe
(503) 229-6459
March 24, 1982

Fuel Burning Equipment Limitations

340-21-020 (1) No person shall cause, suffer, allow, or permit the emission of particulate matter, from any fuel burning equipment in excess of:

(a)0.2 grains per standard cubic foot for existing sources.

(b)0.1 grains per standard cubic foot for new sources.

(2)(a) For sources burning salt laden wood waste on July 1, [1980] 1981, where salt in the fuel is the only reason for failure to comply with the above limits and when the salt in the fuel results from storage or transportation of logs in salt water, the resulting salt portion of the emissions shall be exempted from subsection (1)(a) or (b) of this rule and rule 340-21-015 [until January 1, 1984]. In no case shall sources burning salt laden woodwaste exceed 0.6 grains per standard cubic foot. Sources which utilize this exemption, to demonstrate compliance otherwise with subsection (1)(a) or (b) of this rule, shall:

(A) Not exceed a darkness of Ringlemann 2 from the boiler stacks for more than 3 minutes in any one hour.

(B) [By no later than January 1, 1982] Submit the results of a particulate emissions source test of the boiler stacks bi-annually.

[(C) By no later than January 1, 1982 submit a report on the cost and feasibility of possible control strategies to meet subsection (1)(a) of this rule and the environmental impact of the salt emissions on the airshed.

(b) If this exemption is utilized by any boiler operator, by no later than July 1, 1982 the Department shall hold a public hearing to evaluate the impact of the expiration of this exemption.]

Attachment 2

VICTOR ATIYEH
GOVERNOR

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

Prepared: 03/24/82
Hearing Date: 06/01/82

NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT:

Permanent Permission For Weyerhaeuser to Emit
Salt from their Mill Stack on Coos Bay

The Department is conducting a public hearing on a proposed permanent rule to allow Weyerhaeuser's boilers, at their mill in North Bend on Coos Bay, to emit sea salt which is not allowed by present, permanent rules.

The Oregon Department of Environmental Quality is holding a hearing to take testimony on this action. The hearing will be held in Coos Bay at 3 p.m. on June 1, 1982.

WHAT IS THE DEQ PROPOSING?

Interested parties should request a copy of the complete proposed rule package. Some highlights are:

** An Ambient Salt Study concludes that salt emitted from the Weyerhaeuser stack is pretty well dispersed, and, if it can be distinguished from the much larger quantities of salt entering the area from ocean spray, the amount added by the Weyerhaeuser stack is not significant.

** A Boiler Emission Collection Assessment demonstrates that installing an electroscrubber, or equivalent device, to capture enough salt to meet 0.2 gr/scf and 40% opacity would involve considerable expense and corrosion. Then the captured salt would pose a disposal problem.

** The public hearing is to take testimony on making the temporary rule permanent, which exempts Weyerhaeuser from capturing enough of the salt so the boilers meet DEQ's emission standards.

WHO IS AFFECTED BY THIS PROPOSAL:

The Weyerhaeuser Company and those who see the white plume from its North Bend stack, more opaque than plumes allowed from other stacks in Oregon.

HOW TO PROVIDE YOUR INFORMATION:

Written comments should be sent to the Department of Environmental Quality, 490 N. 2nd St., Coos Bay, OR 97420, and should be received by June 1, 1982, 4:30 p.m.

Oral and written comments may be offered at the following public hearing:

City	Time	Date	Location
Coos Bay	3:00 p.m.	June 1, 1982	Neighborhood Facility Building Empire Lakes Room 2 250 Hull Street Coos Bay, Oregon

WHERE TO OBTAIN ADDITIONAL INFORMATION:

Copies of the proposed rules may be obtained from:

Gary Grimes or Della Pournelle (phone 269-2721)
490 N. 2nd St.
Coos Bay, OR 97420
Call Toll-Free 1-800-452-7813

LEGAL REFERENCES FOR THIS PROPOSAL:

This proposal amends OAR 340-21-020(2). It is proposed under authority of ORS 468.295(3).

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) continued emissions of the dense white plume could negatively affect land for recreational activities because of plume blight. Not requiring control could save land from being used for salt residue disposal or dry decking of logs, on the positive side.

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 adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The Commission's deliberation should come on July 16, 1982 as part of the agenda of a regularly scheduled Commission meeting. If approved, the Department will submit a request to the U.S. Environmental Protection Agency to make this same change in the Oregon State Implementation Plan.

A Statement of Need and Fiscal and Economic Impact Statement are attached to this notice.

AA1690.PN (2) (k)

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

The statutory authority is ORS 468.295(3) where the Commission is authorized to establish different rules for different areas of the state.

Need For The Rule

Weyerhaeuser reports, cited below, and Department review of the situation, indicate that the salt impacts from the boilers are small in comparison to natural sea salt impacts. The Coos Bay air-shed has no air quality ambient violations. While the area caters to tourists, the industrial area around the mill is recognized as heavy-industrial zoned, and neither the company's file nor recent hearings have received any complaints about the heavy white opacity of Weyerhaeuser's stack. The Department has visited out-of-state mills where the salt is being captured, and Weyerhaeuser has estimated a capture cost for this stack; the concensus is that the cost and corrosion involved are not worth the aesthetic and minimal environmental benefit. Therefore, the Department recognizes a need to have the Commission consider converting a temporary rule 340-21-020(2), expiration date January 1, 1984, to a permanent exemption.

Principal Documents Relied Upon

1. Agenda Item N, January 30, 1981, EQC Meeting "Proposed Adoption of Modified Rules for Hogged Fuel Boilers Utilizing Salt Laden Fuel, OAR 340-21-020(2)".

2. "Coos Bay Ambient Salt (Particulate) Study", April 1980 Through May 1981, C.E. Ward and A.E. Seip, Weyerhaeuser, September 1, 1981.

3. Technical Assessment of Boiler Emission Collection Options For Sub-Micron Particles From Salt Water-Stored Wood Fuel, North Bend, OR, Mill, James L. Wooten, Weyerhaeuser Corporate Engineering, November 1981.

4. Weyerhaeuser letter December 22, 1981 to DEQ requesting permanent exemption of their Coos Bay salt plume from Oregon Administrative Rules.

5. Weyerhaeuser Stack Test December 8, 9, 1981, at North Bend, Oregon, Project No. 047-4206-81-03, A.E. Seip, January 26, 1982.

Fiscal and Economic Impacts On Small Business and Others

Report 3 above quoted a capital cost of $4,453,000 and an annual operating cost of $124,000 for an electroscrubber filter ES 250-6 to bring the stack into compliance (catch the salt). The proposed rule change would relieve a large business of this cost, and not affect other mills in Oregon as no others burn wood waste from logs stored in salt water. Small contractors, and perhaps one maintenance man per year at the Weyerhaeuser mill site, would be deprived of work (not be employed) as a result of the proposed exemption, if the control equipment to capture the salt is not installed and operated.

AA1690.S (2) (k)

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: Director

Subject: Agenda Item No. H, April 16, 1982, EQC Meeting

EQC Review of Primary Aluminum Plant Regulations Pursuant to OAR 340-25-265(5) and Request For Authorization to Hold a Public Hearing on Proposed Revisions to OAR 340-25-255 Through 340-25-285.

Background

The production of primary aluminum in Oregon is conducted by two plants, Martin Marietta Aluminum in The Dalles and Reynolds Metals Company near Troutdale. Martin Marietta, which began production in July 1958, uses vertical stud Soderberg (self baking anodes) cells. The Reynolds Metals facility was built in 1942 and employs prebake cells. Both plants are subject to "existing plant" emission limits.

Potroom activities/processes are the major source of emissions at vertical stud Soderberg plants. Other activities such as anode paste production, metal fluxing/casting and raw materials handling at The Dalles plant are considered to be minor sources. Since many potential emission points are baghouse controlled, these minor sources account for about 5% of plant wide particulates and essentially no fluorides. Martin Marietta controls potroom emissions by using a modified production process (Sumitomo) and treating pot exhaust gases with dry control technology for gaseous fluorides and total particulates followed by wet scrubbing for sulfur dioxide reduction (primary control system). Potroom ventilation gases are treated by wet scrubbers to remove gaseous fluorides and particulates (secondary control system).

Significant emission sources at prebake facilities include potroom and anode bake oven exhausts. Activities including raw materials handling, green anode preparation, rodding and metal fluxing/casting are considered minor sources since they amount to less than 5% of plant wide particulate emissions and no fluorides. Here again, several potential emission sites

are well controlled with baghouses. Reynolds uses dry control technology to treat pot exhaust gases (primary system) and relies on high efficiency hooding at the pots and enclosed ore bins to minimize potroom ventilation emissions.

Oregon Administrative Rule 340-25-265(5) requires the Commission to review the feasibility of applying "new plant" emission limits OAR 340-25-265(1) to "existing plants". The Department held an informational hearing on November 9, 1981 to accumulate a data base for the Commission's review. A report by the Hearings Officer summarizing the testimony in the hearing record is included herein as Attachment I.

Discussion and Evaluation

Specifically, the Commission must consider three areas as set forth in OAR 340-25-265(5) in their feasibility review. These areas with brief discussions of the testimony are given in the following:

"340-25-265(5)(a) - The then current state of the art of controlling emissions from aluminum plants;"

Representatives of Reynolds Metals Company and Martin Marietta testified that their respective plants are equipped with what is presently considered state of the art emission controls. Reynolds also indicated that scrubbers on potroom roof vents to control particulates were not feasible.

An engineering consultant to counsel representing orchardists in The Dalles anticipates lower fluoride emissions from Martin Marietta as operating experience with presently installed technology increases. Although he did not cite better available control equipment, he did recommend that plants in Oregon be considered on an individual basis via existing plant site emission limit rules.

"340-25-265(5)(b) - The progress in controlling and reducing emissions exhibited at that time by then existing aluminum plants;"

Since 1973, both plants have installed new primary potroom control systems and modified their pots. These changes have served to significantly reduce fluorides and particulates emitted. Testimony by the Companies and others to these effects are supported by Department data records and observations. To date, neither plant has demonstrated the capability to meet the "new plant" limits. Martin Marietta is fully complying with the "existing plant" for fluorides and particluates emission requirements. Reynolds Metals is attaining the "existing plant" fluoride and opacity limits but not the monthly and annual particulate levels. (The latter situation will be addressed later).

"340-25-265(5)(c) - The need for further emissions control at those facilities based on discernible environmental impact of emissions up to that time;"

Consideration of environmental impacts of aluminum plant emissions generally fall in two areas, i.e., fluorides (both gaseous and particulates) and particulates, the former for potential adverse effects on plant and animal life and the latter for traditional particulate air quality effects.

Two witnesses testified regarding the toxicity of fluorides and their personal concern/opposition to existing environmental levels of fluoride materials. Neither individual addressed effects in Troutdale or The Dalles vicinities.

Farmers and a cattleman with operations near Troutdale indicated that they were not experiencing any adverse effects due to Reynolds Metals and that more restrictive limits were not necessary. Several individuals including plant employees, local businessmen and politicians, requested that unnecessary additional controls not be imposed because present impacts are acceptable and because of concern for the economic viability of the Reynolds plant.

Martin Marietta testified that discernible fluoride impacts were not occurring in The Dalles. Although opposing testimony was not received in the hearing process, the Department is aware that several orchardists in The Dalles area remain very concerned about fluoride effects. Plant employees, local businessmen and community members indicated an absence of effects and a concern for adverse economic impacts if more restrictive limits were imposed.

As mentioned previously, particulate emissions from both plants have been significantly reduced since 1973. The areas around both facilities are in attainment with ambient particulate standards. Present particulate emission levels appear acceptable to the Department.

Another appropriate matter for Commission consideration is the inability of Reynolds Metals to meet "existing plant" particulate limits. In supplemental hearing record testimony, Reynolds recommended changes to the present particulate emission limits for existing plants. The reason for their request is that after completing a $31 million emission reduction program which included state of the art technology, they have exceeded the 13.0 lb/ton monthly average and the 10.0 lb/ton annual average from all sources by approximately 20%. The frequency of exceedances is about 30% for the monthly and essentially 100% for the annual limits during 1980 and 1981.

Reynolds' problem appears to be caused by particulates in the potroom roof ventilation exhausts. Alumina particles breakdown passing through the dry primary controls and yield a pot feed material that is more susceptible to air entrainment during handling in the potrooms. This difficulty has occurred at other prebake plants that have retrofitted with dry control technology but was not evident or anticipated in 1973 when current rules were adopted since this technology was not widely used at that time.

The particulate emission limits recommended by Reynolds were developed based on a statistical analysis of their plant wide emission data obtained from January 1980 through August 1981. Both the Department and EPA have reviewed the analysis and agree with the results. Reynolds' statistical method is essentially the same as that used by the Department in 1973 to develop the present regulation. Different results are obtained mainly because an emission data base for a plant the age of the Reynolds facility equipped with dry control technology was not available in 1973. Therefore, anticipated emissions were used in developing the standards and the potroom alumina entrainment problem was not known.

As mentioned previously, Reynolds testified that retrofitting with potroom roof scrubbers was not feasible. Such scrubbers are generally used for controlling gaseous fluorides and particulate removal is a secondary benefit. According to the Company's preliminary estimates, installing roof scrubbers would cost about $23,000,000. The Department believes that whereas roof controls would most likely allow Reynolds to achieve present emission limits, such equipment would not likely improve ambient air quality beyond the plant site. Therefore, the Department concurs with Reynolds.

Ambient air impacts of present particulate emissions rates from the Reynolds plant were analyzed by the Company and the Department. The results indicated that violations of ambient air standards will not occur under present conditions.

Based on its review of the testimony, the Department has concluded that requiring "existing plants' to meet "new plant" emission limits is neither feasible nor warranted and that Reynolds' recommendations for modifying particulate emission limits for "existing plants" is justified, therefore, the Department is requesting authorization from the Commission to hold a public hearing on the proposed rule change set forth in Attachment II. (A Hearing Notice is contained in Attachment III.)

Significant features of the proposed rule include:

a. No changes in emission limits for "new plants",
b. Deleting the requirements for "existing plants" to comply with "new plant" limits and related rule provisions,
c. No changes in fluoride emission limits for "existing plants",
d. Applying present plant wide particulate emission limits to vertical stud Soderburg plants (Martin Marietta is complying with these numbers),

e. Establishing plant wide particulate emission limits applicable to prebake facilities (Reynolds is considered by the Department to be capable of meeting the proposed numbers), and
f. Source test methods are specified.

Since both Martin Marietta and Reynolds can comply with these proposed changes, compliance schedule language has been deleted for "existing plants".

Summation

1. The Commission is required to review the feasibility of applying "new plant" emission limits to "existing plants", OAR 340-25-265(5).
2. Testimony from a November 9, 1981 informational hearing developed a data base for this review.
3. The hearing record indicates that:
    a. Both Martin Marietta in The Dalles and Reynolds Metals near Troutdale are employing state of the art controls for their respective "existing plants".
    b. Since 1973, both companies have significantly reduced fluoride and particulate emissions.
    c. There is no discernible need to reduce emissions below present levels at either facility.
    d. Martin Marietta is complying with all current limits for "existing plants" but cannot comply with "new plant" limits.
    e. Reynolds Metals is meeting opacity and fluoride limits but not particulate mass rate limits for "existing plants" and cannot meet "new plant" limits.
    f. Applying "new plant" limits to "existing plants" is not feasible and is not warranted.
4. The Department is requesting authorization from the Commission to hold a public hearing on proposed rule changes that:
    a. Delete requirements for "existing plants" to comply with "new plant" limits,
    b. Do not change either emission limits for "new plants" or fluoride and opacity limits for "existing plants",
    c. Apply present particulate mass emission rates to vertical stud Soderburg plants (Martin Marietta),
    d. Establish particulate mass emission rates for prebake plants (Reynolds Metals), and
    e. Specify applicable source test methods.

Director's Recommendation

Based upon the Summation, it is recommended that the Commission find that applying OAR 340-25-265(4)(b) is not feasible and authorize the Department to hold a public hearing on the proposed rule changes set forth herein as Attachment II.

Michael Downs
for
William H. Young

Attachments: I Hearing Officer Report
II Proposed Rule Changes
III Notice of Public Hearing and Statement of Need for Rulemaking

AA1989 (1)
F.A. Skirvin:a
229-6414
March 29, 1982

ATTACHMENT I

HEARING OFFICER REPORT

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: Linda K. Zucker, Hearing Officer

Subject: Public hearing report on feasibility of applying state emissions standards for new aluminum plants to older plants.

SUMMARY OF PROCEDURE

Pursuant to public notice, a public hearing was convened at the DEQ offices in Portland, Oregon at 10:00 a.m. on November 9, 1981. The purpose of the hearing was to receive testimony on the feasibility of applying new aluminum plant emission standards to older plants based on: 1) the current state of the art of controlling emissions; 2) progress in control made to date; and, 3) the need for further emissions control based on discernible environmental impact from emissions.

SUMMARY OF TESTIMONY

SPEAKERS

Ted Rowell spoke for Oregon Americans United to Combat Fluoridation. He characterized fluorides as a most toxic chemical element, capable of killing quickly or by cumulative poisoning, and having a deleterious effect on human health and development. Industrially produced and naturally occurring fluorides contaminate local waters, preventing fish from flourishing. Mr. Rowell cited several publications recognizing the danger posed by introduction of fluorides to the ecosystem. They are:

Environmental Pollution By Fluorides, C.E. Carlson and J.E. Dewey;
1980 Emergency Response Book;
Agricultural Handbook No. 380, Robert J. Lilly, "Air Pollutants Affecting the Performance of Domestic Animals.";
The Cornell Veterinarian (April 1980, pp 180-192), Crisman, Malin and Crook, "New York State and U.S. Federal Fluoride Pollution Standards Do Not Protect Cattle, Health."; and,
Fluoridation: The Great Dilemma, Dr. Woolbott.

Written testimony available.

Daniel Stoke, a member of the United Steel Workers of America, has been employed at Reynolds Metals Company's Troutdale plant since 1969. He spoke for his local unit as well as the 900 Reynolds employees represented by different bargaining units. He believes the numerous emission control improvements implemented at the plant have made workers' jobs more difficult. Additional pollutant controls continue to be sought. Mr. Stokes' robust health and stature, and that of his co-workers, attest to the effectiveness of these efforts.

Donald Schaeffer of the International Brotherhood of Electrical Workers, Local 49, represents maintenance employees at Reynolds in Troutdale. Mr. Schaeffer credits Reynolds with successful compliance with current environmental standards and a voluntary expenditure of money and research effort at environmental improvement locally and nationally. He believes that medical studies of cattle raised at Reynolds' plant sites confirm the absence of adverse effect due to fluoride and/or other plant emissions.

The need for stricter emission controls should be examined in light of economic conditions. Citing a 23% current state unemployment figure, he expressed concern for job security for Reynolds' workers. More stringent standards would be costly to implement while power availability is already a problem. Were Reynolds to close, loss of tax revenue would devastate eastern Multnomah County.

R.L. (Dick) Schneider, business representative for Machinists Union District 24 of Portland, defined the issue as "environment or jobs". High inflation and unemployment turn the balance against imposition of more stringent standards. The risk of a plant shut-down is too great.

Skip Folland has been a millright at Reynolds' Troutdale plant for 15 years. His knowledge of plant equipment and its repair convinces him that it is impossible for an existing plant to meet new plant standards. Plant closure would be inevitable.

Joe Byrne, manager of environmental control for Martin Marietta Aluminum, applied the criteria for determining feasibility to The Dalles plant.

1. State-of-the-Art. In aluminum reduction, primary control consists of taking the off-gasses from the reduction cell and treating them directly. EPA has designated dry primary scrubbers as the best available control technology. The Dalles plant has been retrofitted with such a system and it has a current efficiency of in excess of 99% removal of fluorides and particulates. Secondary control is applied as necessary and invovles ventilating air in the entire pot room and treating it prior to discharge to the atmosphere. The Dalles plant is equipped with a wet secondary scrubber which is recognized as state-of-the-art for facilities like The Dalles plant. Gaseous fluorides entering the secondary scrubber system at The Dalles plant have a concentration of approximately 1.2 ppm or 0.000009 ounces/ft^3 cubic foot of air stream. The Dalles plant achieved 91% removal of gaseous components and 82% removal of particulate.

2. Progress in Controlling Emissions. The company points to its progress since 1973 when the first rolling 12-month average emissions were 2.5 lbs. F/ton and 10.6 lbs./ton particulate. In October, 1981 reported emissions were 1.4 lbs. F/ton and 7.0 F/ton particulates, well under the present regulatory limit, and representing an overall efficiency of almost 97% for fluorides and 94% for particulate. Without controls, present production would yield approximately 45 lbs. F/ton and 115 lbs/ton particulate.

3. Need for Further Control Based Upon Discernible Environmental Impact. Byrne cited a 1972-79 study by Dr. Timothy Facteau of Oregon State University as reporting no detectable adverse effect upon cherry crops in The Dalles. An inspection and sampling analysis of susceptible vegetation by Dr. Abraham J. Hindowi of EPA produced no detectable indication of visible injury to plants by hydrogen fluoride and/or sulphur dioxide. Chemical analysis of leaf tissues indicated fluoride values and sulphur accumulation below levels necessary to cause damage.

   According to Byrne, the new source standard was based on performance of a facility (Italco, Ferndale, Washington) whose emissions exceed the proposed regulatory emission limit.

Written testimony available.

Earl Anderson, laboratory and environmental controls superintendent for Reynolds Metals Company, challenged the feasibility of imposing new plant standards on the 40-year-old Troutdale plant. Its recently installed $31 million cell hooding and a modern dry scrubbing facility represent state-of-the-art emission controls.

Emission reduction has been significant. No applicable major technological breakthrough, which would make achievement of the more stringent standard reasonable, has occurred since the current standard for existing plants was established. Diverse local support for continued plant operation shows the absence of discernible adverse environmental impact.

The plants age and design will not allow achievement of the control level accessible to a modern facility. Other regulators recognize the need to accomodate older facilities. Written testimony available.

Reynolds submitted a supplemental statement addressing its need for revision of the existing particulate standards for the Troutdale plant to a less restrictive level. According to Reynolds, the EQC is required by law to set particulate standards with which the plant can comply using state-of-the-art controls. Moreover, according to Reynolds, the history of the original rule adoption shows the intention to establish an attainable standard.

Reynolds provided extensive statistical analysis of its emission test results accumulated over a period of twenty consecutive months (January, 1980 - August, 1981). The statistical methods were very similar to those used by the Department in establishing the current regulations for new and existing plants. However, the data used by Reynolds was more recent and represented the present emissions from their Troutdale plant. Based on their analysis, Reynolds recommends that the EQC should authorize the DEQ to adopt the following rule to substitute, in part, for OAR 340-25-265(3)(b).

> "The total organic and inorganic particulate matter emissions from all sources shall not exceed:
>
> (a) A monthly average of 16 pounds of particulate per ton of aluminum produced; and,
>
> (b) An annual average of 13.5 pounds per ton of aluminum produced."

Reynolds suggests that in order to assure proper operation of all potroom sources, the Commission may also desire to amend subsection (c) to provide that, "visible emissions from any potroom source shall not exceed 10% opacity or .5 on the Ringlemann Smoke Chart at any time." Finally, Reynolds suggests that the Commission should amend OAR 340-25-260(13) to define the monthly average as, "the arithmatic average of all test results, but not less than 3, obtained in any calendar month, utilizing test methods and procedures approved by the Department."

Reynolds concludes that these proposed revisions meet the intent of the Oregon air quality laws and rules. In addition, the adoption of these revisions will not result in any environmental damage. Finally, the evidence provided in its supplemental statement, in addition to illustrating the need to revise the existing plant particulate standards, also clearly shows that it would be infeasible, and environmentally unnecessary, to require that the Troutdale Reduction Plant meet the Oregon new plant standards for particulate matter. Written testimony available.

Roger Burt, representing Citizens for Pure Water and Citizens for a Lead-Free Environment, expressed opposition to any change in the fluoride emission standards. The total environmental burden of fluoride is continually increasing as fluoride is a common industrial product and waste by-product. Burt stated there is no "no effect" level of fluoride, although medical and scientific measuring techniques can discern only gross fluoride effect. It accumulates in organisms and its presence is increasing in the food chain. Jobs cannot be balanced by environmental destruction or harm to human health. Burt submitted for EQC reference a copy of Environmental Fluoride 1977 which summarizes relevant available literature.

WRITTEN TESTIMONY

Richard E. Hatchard, registered professional engineer, proposes that Oregon's two existing aluminum plants be treated on an individual site specific permit basis under best available control technology rather than under a single rule. Mr. Hatchard's credentials are outlined in his report which also identifies him as a consultant to counsel representing the orchardists in The Dalles in connection with their litigation against Martin Marietta Aluminum Corporation. He is convinced that existing technology permits substantial reductions of emissions (particularly of fluorides) at the Martin Marietta plant beyond the control obtained during 1973-1980. While his conclusion is partly based on proprietary data exempt from disclosure, public information showed a Washington Martin Marietta plant to be capable of restricting fluoride emissions to .8 lbs F/ton of aluminum produced on a monthly average. One proposed plant contemplates .5 lbs F/ton of aluminum as the control standard Hatchard would require site specific plant emissions employing best available control technology as the method and standard for 1986.

Glenn E. Otto, State Representative and long-time Troutdale resident, believes the Reynolds plant is already operating under the most stringent standards it can meet and is not causing harm. He objects to imposing unrealistic and unattainable requirements on an economic mainstay of East Multnomah County.

Alan Townsend, the owner of Trailblazer Berry Farm in Troutdale, opposes stricter standards for the nearby Reynolds Troutdale plant. His berries are of excellent quality and demand a premium price on eastern markets. He is concerned that economic dislocation will result from unnecessary restrictions on the Troutdale plant.

Dean Ditmore raises cattle on 1500 acres near the Troutdale plant. These cattle show no ill effects from plant emissions. He is perfectly satisfied that Reynolds' abatement procedures are sufficient to protect the cattle and land on which they graze.

Kaz Fujii leases 52.8 acres from Reynolds "practically at the back door of the plant." He uses this acreage to grow produce. At no time during the 18 years he has used the land has he noticed any damage to his produce from emissions from the Reynolds plant. Rather, the produce is healthy and free of contamination, blight or damage.

Tom Overby, President, United Steelworkers, Local No. 330, with a membership of approximately 550, opposes requiring existing aluminum reduction plants to meet standards of new facilities. He believes that Reynolds has exhibited a concern for maintaining a quality of fume control that will enable the plant and surrounding area to work harmoniously. Imposition of additional requirements could have a substantial financial impact on the company and affect its continuing operation. Nothing indicates a need for further emission control.

Robert B. Dix, a commercial grower of strawberries and raspberries in Troutdale, reports that emissions from the plant do not harm his berries. He considers stricter standards unnecessary.

Bruce B. Boldt, Mayor of the City of Wood Village, feels that Reynolds Aluminum has made significant progress and will continue to make every effort to reduce emissions and preserve and protect the air quality, and therefore opposes extension of new plant emission limits to existing aluminum plants.

Jay A. Bormann, Vice-President, Local Lodge No. 63, International Association of Machinists and Aero-Space Workers, states the opposition of his group to extending the new plant emission standards to existing facilities. He believes the current fume control system is adequate, and more stringent requirements could have a significant financial effect on the continued operation of the Reynolds Troutdale plant.

D. Perry Thompson, Assistant Business Manager, International Brotherhood of Oilmakers, Ironship Builders, Blacksmiths, Forgers & Helpers, opposes applying emission standards for new aluminum smelters to the existing Reynolds Metal Plant at Troutdale. Having personally investigated the fumigation and solid particle control at the Reynolds plant, he finds that the very latest and most effective controls have been installed there at great expense and resulting high degree of effectiveness.

Robert M. Sturges, Mayor, City of Troutdale opposes more stringent requirements for Reynolds Metals because it could necessitate the closure of the plant, which would be absolutely disastrous to the City of Troutdale. He can attest to the fact that Reynolds has never been a serious contributor to the air pollution in the Troutdale area. He notes that, "the cost thus far expended to obtain the present level of emission control has resulted in drastic increases in the cost of producing aluminum and at the end of the line, it is the taxpayer that suffers. For example, in 1949, the customer paid $20.95 for a 4' x 12' of 2024T-3 alclad aluminum, commonly used on aircraft." Today, "(i)t is roughly 8 times higher, for which government is largely responsible." The City of Troutdale opposes any decision which will tax Reynolds to the point of closure.

Robert L. Gay, Ph.D., is a consultant and former DEQ employe who developed the technical basis for the present state emissions standards for new and existing aluminum plants. His testimony describes the importance and benefits of using a statistical approach to evaluate the state-of-the-art of emissions control at aluminum plants; describes concerns about the basis and interpretation of the present standards which should be addressed by the EQC before deciding whether existing plants should eventually comply with new plant standards; discusses the need for emissions control based on the environmental impacts of aluminum plant emissions; describes the information needed by the EQC and the DEQ in order to determine whether existing plants should meet the new plant standards; and contains recommendations for strengthening the present standards and the methodology used to establish them. The recommendations, intended to strengthen Oregon's aluminum plant emission standards and to further the development of statistical analysis as a means of assessing highest and best practicable emissions control for any industry are:

(1) Extend the deadline for deciding whether existing aluminum plants in Oregon should eventually comply with new plant emission standards, until there is specific and indicated information obtained.

(2) Conduct a thorough review of the statistical methods and data base used to establish the present aluminum plant emission standards. Revise the methodology as necessary to strengthen it. If revisions are needed, re-analyze the original data bases, to determine if revisions to the present standards are called for.

(3) Analyze updated data bases from representative aluminum plants (including the original three plants on which present standards are based), to evaluate highest and best practicable emissions controls for new and existing plants.

(4) If a thorough study of health and welfare impacts from present aluminum plant emissions cannot be undertaken, then de-emphasize "need...based on discernible environmental impact" (OAR 340-25-265(5)(c)) as a decision criteria, and rely on assessment of highest and best practicable control technology (OAR 340-20-001), using a statistical approach.

(5) After this has been accomplished, determine whether existing aluminum plants should eventually meet emission standards required of new plants.

Ron Wyden, Member of Congress and member of the House Health and Environment Subcommittee which has jurisdiction over the Clean Air Act, urges the Commission to look carefully at the record to see whether plants such as the Reynolds Troutdale facility have lived up to existing standards, and whether those standards have proven adequate to protect the public health and adjacent commercial interests, including berry farms. In considering reauthorization of the Clean Air Act, Congress will be discussing ways to retain clean air goals while injecting new flexibility into how the goals are achieved. The Commission's recently adopted New Source Review Rule has been helpful to him in developing new flexible approaches. He is exploring, for example, an innovative approach to giving incentives to industry to meet clean air targets. The goal of this approach is not to close down plants, but to stimulate creative ways to improve air quality.

If the Reynolds plant, in particular, passes this test based on the record, then he recommends no further pollution control requirements be imposed because it may remove the margin of profitability for the 40-year-old plant. If the plant is closed, further serious damage will be done to East Multnomah County's -- and the entire region's economy. With a jobless rate in Oregon exceeding 10%, we cannot afford to put more people out of work without a documented need. Written testimony available.

The following persons submitted signed duplicates of the following letter:

Anderson, Donald G.	Harshberger, W. O.	Rign, Frank D.
Buelke, P. A.	Hayes, W. B.	Roberts, Bill C.
Bushek, Daryl	Herkman, Eugene A.	Rohn, Max L.
Campbell, Dennis F.	Holmes, Ken	Schlechter, Monte L.
Casciato, David L.	Huber, Archie G.	Schmitz, Alfred D.
Caywood, O. L.	Johnson, Norman L.	Shattuck, Norman H.
Chase, Calvin G.	Klee, Ronald K.	Sherman, Ron S.
Day, R. C.	Leonard, Michael D.	Simon, Howard
Emery, Norman S. Jr.	Manes, Ed	Simonson, Kenneth
Engston, Gary L.	McVey, Jim	Smith, William D.
Foland, W. L.	Milne, Richard G.	Stratton, LeRoy D.
Forsyth, H. K.	Morris, Duane H.	Strickland, Kenneth E.
Fulton, Robert N.	Nehls, Tracy C.	Tomny, James D.
Grurlee, Jan M.	Nelson, Darrell W.	Weberg, David C.
Gunly, John W.	Parker, Don	Wilson, Paul L.
Hall, Dale	Peuneux, William D. Jr.	Yohnepel, Hans D.
Harmon, Mel L.		

The letter states:

"This letter is in regards to the hearing being held on November 9, 1981 to consider the feasibility of applying state standards for emissions for new aluminum smelters to existing plants.

I am sending this letter because I, as an employee of the Reynolds Aluminum, Troutdale Plant, have a vested interest into your deliberations. Those interests are:

1. Feeding my family.
2. Keeping a roof over their heads.
3. Providing medical and dental care for them.
4. Paying my taxes.

On the latter, I am a taxpayer, so I have a voice as to what goes on in the State and community. This voice is saying to you that the attempt of applying standards of new aluminum smelters to the Reynolds Troutdale plant, which is an existing smelter, is totally unrealistic. Reynolds Aluminum is always in compliance with D.E.Q. standards for existing facilities' emissions. Reynolds has always shown that they are a concerned and responsible Company.

As one, who as stated above, has a vested interest in your deliberations and one who knows that in a time of high interest rates and high unemployment that there are no jobs out there to replace the one I currently have, would hope that you would consider the economic burden you would be placing on me as a worker and Reynolds Company as an employer in this community and state."

Jim Chrest, Member, Oregon House of Representatives, urges the agency to work with established aluminum companies to reach some middle ground in protecting our environment and the jobs offered by the local aluminum industry. He understands that Reynolds has made improvements costing millions of dollars in the past several years in attempting to meet the 1986 deadline. He questions whether it was ever considered possible for existing plants such as the one in Troutdale to realistically meet new plant standards. His information does not show that there is a need to require applying the stringent standards of new plants to the Troutdale plant, and were the standards imposed, it is probable that the plant would have to close, costing nearly a thousand jobs directly, and many more indirectly because of the fact that it would be impossible to meet new plant standards in a plant built dozens of years ago. The threat of meeting such standards by 1986 could mean a closure. Mr. Chrest questions whether the State can afford the loss of jobs and money to the economy at the present time.

Gary Lee Brown, Financial Secretary, United Steel Workers of America, Local 330 reports that at its regular monthly membership meeting, the union voted unanimously to inform the Commission that the local stands opposed to application of new plant standards to existing plants at this time, and until such time that advances in the state-of-the-art of controlling emissions from aluminum plants would make such emission levels realistically obtainable.

Applying the rule criteria, Mr. Brown concludes that there have been no significant advances or breakthroughs in the state-of-the-art of controlling emission standards since Reynolds put in (at a cost of $31 million) the most advanced system known, and even applying the highest state-of-the-art it is difficult to keep the emissions down to the present level, and under the present standards there is no discernible environmental impact from emissions. Therefore no cause has been shown to warrant more stringent controls. Imposition of new plant standards to the Reynolds plant will be tantamount to the Commission shutting down the Troutdale plant.

Studies have shown that for every one job lost directly from a plant closure, three to five indirect jobs are lost. The burden on the unemployment and welfare systems are obvious. There would also be a large loss of personal and property tax revenues to local government. Studies have also shown a direct relationship between plant closure and a rise in neighborhood crime and violence. Mr. Brown requests that a more stringent standard not be imposed until such time as the state-of-the-art has progressed to the point that the new standards are practicably obtainable.

Arnold and Dorothy Marschman fear plant closure if Reynolds is required to comply with new plant standards. Workers with 15-25 years of experience will be unable to find new work if the plant is required to shut down.

Lon Imel, Executive Secretary, Multnomah County Labor Council, AFL-CIO believes that the Reynolds facility is doing its utmost in controlling emissions and thus opposes application of new plant standards to the Reynolds facility. East Multnomah cannot afford plant closure.

Dorothy J. Lewis believes that it is unrealistic to require existing plants to meet new plant standards. The Dalles depends on the Martin Marietta plant. She asks that the Commission consider the present devastated condition of the community before imposing a more stringent operating standard.

Darrell L. Perry believes that the Martin Marietta plant has done its share of improvements to comply with all necessary standards and that the contemplated change would be impracticable. While protection of the environment is wonderful, rules must be implemented with logic and reasoning to avoid destroying business and industry.

Peggy Fadness reminds the Commission that The Dalles depends on Martin Marietta for employment, taxes and Community support. She finds it unreasonable to expect an old plant to meet new plant standards. Both existing aluminum plants submitted post hearing testimony to respond to other testimony.

Harry Adams, President, Local 8141, United Steel Workers of America reports that Martin Marietta has spent millions of dollars in the last few years to improve the environment. Employes have been working very hard to make the plant run clean and he believes the plant has the cleanest smelter in the country. He asks the Commission to consider the economic effects that their decision will have on thousands of men, women and children in the area who depend employment at Martin Marietta Aluminum.

Jack C. Harper of Martin Marietta Aluminum submitted a statement of support for Martin Marietta's opposition to imposition of more stringent standards. The statement was signed by a number of professional people in The Dalles who are recognized as thoughtful, responsible community leaders. The signatories understood the issue and were in complete agreement with what they signed; they are not relatives or employes or persons having any direct interest in Martin Marietta. The signatories often made two observations: That Martin Marietta has done an excellent environmental job at The Dalles plant and that they feel it is unfair to expect an existing plant to be retrofitted to meet standards intended for new plants. They expressed great concern over the economic implications inherent in all of this. A copy of the petition is attached.

Martin Marietta submitted a copy of a letter from Donald P. Dubois, Regional Administrator of the United States Environmental Protection Agency. The letter, which is dated October 28, 1978 and is addressed to Martin Marietta, indicates that EPA, in their PSD review of a new (third) potline at Martin Marietta's Goldendale, WA site, set an initial permit level of 1.3 lb.F/ton of aluminum produced. This limit is reduced to 0.8 lb.F/ton one year after start-up with the proviso that if the company makes a good faith effort and fails to meet the 0.8 figure, it will be modified. EPA developed these limits based on information in Martin Marietta's PSO permit application. Mr. Dubois' letter also indicates that the company considers the 0.8 limit unreasonable.

Gary J. Rood, Administrator, The Dalles General Hospital writes to express the hospital's concern over any excessive air pollution standards that may be applied to Martin Marietta Aluminum, Inc. He writes, "The Dalles General Hospital is one of the largest employers in the Mid-Columbia (over 300 employees and over $5 million on payroll). Any major changes in Martin Marietta would adversly effect (fic) our ability to render health care in the Mid-Columbia area."

Carl E. Warman was an employe of Reynolds Metal until he was laid off on October 21, 1981. His efforts to find a job with similar benefits and pay has met with no success. He hopes to return to Reynolds, and asks the Commission to work with the aluminum industry to find a solution that both sides can live with.

Caroline Miller, Multnomah County Commissioner, recommends no further pollution control requirements be imposed on the Reynolds plant because it may remove the margin of profitability for the 40-year-old plant. Unemployment is at an excessive rate as is.

Joseph L. Byrne of Martin Marietta took issue with an assertion made regarding the ability of its Goldendale, Washington plant to meet a 0.8 lbs. F/ton limitation. Martin Marietta doubts that any other aluminum reduction facility has agreed to restrict its emissions to 0.5 lbs F/ton of aluminum produced. Mr. Byrne asserts that the conclusion reached by Mr. Hatchard regarding Martin Marietta's ability to meet proposed standards is without documentation.

TESTIMONY SUMMARIZED AND ATTACHED IN HEARING OFFICER'S REPORT TO THE COMMISSION ON ALUMINUM PLANT RULES

SPEAKERS (* with written testimony)

*1. Ted Rowell spoke for Oregon Americans United to Combat Fluoridation
2. Daniel Stoke, a member of the United Steel Workers of America
3. Donald Schaeffer of the International Brotherhood of Electrical Workers, Local 49
4. R.L. (Dick) Schneider, business representative for Machinists Union District 24 of Portland
5. Skip Folland has been a millright at Reynolds' Troutdale plant
*6. Joe Byrne, manager of environmental control for Martin Marietta
*7. Earl Anderson, laboratory and environmental controls superintendent for Reynolds
8. Roger Burt, representing Citizens for Pure Water and Citizens for a Lead-Free Environment

WRITTEN TESTIMONY

9. Richard E. Hatchard, registered professional engineer
10. Glenn E. Otto, State Representative and long-time Troutdale resident
11. Alan Townsend, the owner of Trailblazer Berry Farm in Troutdale
12. Dean Ditmore raises cattle on 1500 acres near the Troutdale plant
13. Kaz Fujii leases 52.8 acres from Reynolds
14. Tom Overby, President, United Steelworkers, Local No. 330
15. Robert B. Dix, a commercial grower of strawberries and raspberries in Troutdale
16. Bruce B. Boldt, Mayor of the City of Wood Village
17. Jay A. Bormann, Vice-President, Local Lodge No. 63, International Association of Machinists and Aero-Space Workers
18. D. Perry Thompson, Assistant Business Manager, International Brotherhood of Oilmakers, Ironship Builders, Blacksmiths, Forgers and Helpers
19. Robert M. Sturges, Mayor, City of Troutdale
20. Robert L. Gay, Ph.D., is a consultant and former DEQ employe
21. Ron Wyden, Member of Congress and member of the House Health and Environment Subcommittee which has jurisdiction over the Clean Air Act
22. Jim Chrest, Member, Oregon House of Representatives
23. Gary Lee Brown, Financial Secretary, United Steel Workers of America Local 330
24. Arnold and Dorothy Marschman
25. Lon Imel, Executive Secretary, Multnomah County Labor Council AFL-CIO
26. Dorothy J. Lewis
27. Darrell L. Perry
28. Peggy Fadness
29. Harry Adams, President, Local 8141, United Steel Workers of America
30. Jack C. Harper of Martin Marietta Aluminum Martin Marietta
31. Donald P. Dubois, Regional Administrator of the United States Environmental Protection Agency
32. Gary J. Rood, Administrator, The Dalles General Hospital
33. Carl E. Warman
34. Caroline Miller, Multnomah County Commissioner
35. Joseph L. Byrne of Martin Marietta

The following persons submitted signed duplicates of a letter, enclosed:

Anderson, Donald G.
Buelke, P. A.
Bushek, Daryl
Campbell, Dennis F.
Casciato, David L.
Caywood, O. L.
Chase, Calvin G.
Day, R. C.
Emery, Norman S. Jr.
Engston, Gary L.
Foland, W. L.
Forsyth, H. K.
Fulton, Robert N.
Grurlee, Jan M.
Gunly, John W.
Hall, Dale
Harmon, Mel L.
Harshberger, W. O.
Hayes, W. B.
Herkman, Eugene A.
Holmes, Ken
Huber, Archie G.
Johnson, Norman L.
Klee, Ronald K.
Leonard, Michael D.
Manes, Ed
McVey, Jim
Milne, Richard G.
Morris, Duane H.
Nehls, Tracy C.
Nelson, Darrell W.
Parker, Don
Peuneux, William D. Jr.
Rign, Frank D.
Roberts, Bill C.
Rohn, Max L.
Schlechter, Monte L.
Schmitz, Alfred D.
Shattuck, Norman H.
Sherman, Ron S.
Simon, Howard
Simonson, Kenneth
Smith, William D.
Stratton, LeRoy D.
Strickland, Kenneth E.
Tomny, James D.
Weberg, David C.
Wilson, Paul L.
Yohnepel, Hans D.

Primary Aluminum Plants

Statement of Purpose

340-25-255 In furtherance of the public policy of the state as set forth in ORS [449.765], 468.280 it is hereby declared to be the purpose of the Commission in adopting the following regulations to:

(1) Require, in accordance with a specific program and time table for each operating primary aluminum plant, the highest and best practicable collection, treatment, and control of atmospheric pollutants emitted from primary aluminum plants through the utilization of technically feasible equipment, devices and procedures necessary to attain and maintain desired air quality.

(2) Require effective monitoring and reporting of emissions, ambient air levels of fluorides, fluoride content of forage, and other pertinent data. The Department will use these data, in conjunction with observation of conditions in the surrounding areas, to develop emission and ambient air standards and to determine compliance therewith.

(3) Encourage and assist the aluminum industry to conduct a research and technological development program designed to reduce emissions, in accordance with a definite program, including specified objectives and time schedules.

(4) Establish standards which, based upon presently available technology, are reasonably attainable with the intent of revising the standards as needed when new information and better technology are developed.

Definitions

340-25-260 (1) "All Sources" means sources including, but not limited to, the reduction process, alumina plant, anode plant, anode baking plant, cast house, and collection, treatment, and recovery systems.

(2) "Ambient Air". The air that surrounds the earth, excluding the general volume of gases contained within any building or structure.

(3) "Annual Average" means the arithmetic average of the [twelve most recent concecutive] monthly averages reported to the Department <u>during the twelve most recent consecutive months.</u>

(4) "Anode Baking Plant" means the heating and sintering of pressed anode blocks in oven-like devices, including the loading and unloading of the oven-like devices.

(5) "Anode Plant" means all operations directly associated with the preparation of anode carbon except the anode baking operation.

(6) "Commission" means Environmental Quality Commission.

(7) "Cured Forage" means hay, straw, ensilage that is consumed or is intended to be consumed by livestock.

(8) "Department" means Department of Environmental Quality.

(9) "Emission" means a release into the outdoor atmosphere of air contaminants.

(10) "Emission Standards" means the limitation on the release of <u>a</u> contaminant or multiple contaminants to the ambient air.

(11) "Fluorides" means matter containing fluoride ion.

(12) "Forage" means grasses, pasture, and other vegetation that is consumed or is intended to be consumed by livestock.

(13) "Monthly Average" means the arithmetic average of [three] all test results obtained during any calendar month, utilizing test methods and procedures approved by the Department.

(14) "Opacity" means the degree to which an emission reduces transmission of light or obscures the view of an object in the background.

(15) "Particulate Matter" means a small discrete mass of solid or liquid matter, but not including uncombined water.

(16) "Primary Aluminum Plant" means those plants which will or do operate for the purpose of, or related to, producing aluminum metal from aluminum oxide (alumina).

(17) "Pot Line Primary Emission Control Systems" means the system which collects and removes contaminants prior to the emission point. If there is more than one such system, the primary system is that system which is most directly related to the aluminum reduction cell.

(18) "Regularly Scheduled Monitoring" means sampling and analyses in compliance with a program and schedule approved pursuant to rule OAR 340-25-280.

(19) "Ringlemann Smoke Chart" means the Ringlemann Smoke Chart with instructions for use as published in May, 1967, by the U.S. Department of Interior, Bureau of Mines.

(20) "Standard Dry Cubic [Root] Foot of Gas" means that amount of the gas which would occupy a cube having dimensions of one foot on each side, if the gas were free of water vapor at a pressure of 14.7 P.S.I.A. and a temperature of 60°F.

Emissions Standards

340-25-265(1) The exhaust gases from each primary aluminum plant constructed [on or] after January 1, 1973, shall be collected and treated as necessary so as not to exceed the following minimum requirements:

(a) Total fluoride emissions from all sources shall not exceed:

(A) A monthly average of 1.3 pounds of fluoride ion per ton of aluminum produced; and

(B) An annual average of 1.0 pound of fluoride ion per ton of aluminum produced; and

(C) 12.5 tons of fluoride ion per month from any single aluminum plant without prior written approval by the Department.

(b) The total of organic and inorganic particulate matter emissions from all sources shall not exceed:

(A) A monthly average of 7.0 pounds of particulate per ton of aluminum produced; and

(B) An annual average of 5.0 pounds of particulate per ton of aluminum produced.

(c) Visible emissions from any source shall not exceed ten (10) percent opacity or 0.5 on the Ringlemann Smoke Chart at any time.

(2) Each primary aluminum plant constructed and operated after January 1, 1973, shall be in full compliance with these regulations no later than 180 days after completing potroom start-up and shall maintain full compliance thereafter.

(3) The exhaust gases from each primary aluminum plant constructed on or before Janaury 1, 1973, shall be collected and treated as necessary so

as not to exceed the following minimum requirements:

(a) Total fluoride emissions from all sources shall not exceed:

(A) A monthly average of 3.5 pounds of fluoride ion per ton of aluminum produced; and

(B) An annual average of 2.5 pounds of fluoride ion per ton of aluminum produced; and

(C) 22.0 tons of fluoride ion per month from any single aluminum plant without prior written approval by the Department.

(b) The total of organic and inorganic particulate matter emissions from all sources at plants using vertical stud Soderberg cells shall not exceed:

(A) A monthly average of 13.0 pounds of particulate per ton of aluminum produced; and

(B) An annual average of 10.0 pounds of particulate per ton of aluminum produced.

(c) The total of organic and inorganic particulate matter emissions from all sources at plants using prebake cells shall not exceed:

(A) A monthy average of 15.1 pounds of particulate per ton of aluminum produced; and

(B) An annual average of 13.0 pounds of particulate per ton of aluminum produced.

[(c)] (d) Visible emissions form any source shall not exceed twenty (20) percent opacity or 1.0 on the Ringlemann Smoke Chart at any time.

(4) Each existing primary aluminum plant shall [proceed promptly with a program to] comply [as soon as practicable] with these regulations upon

adoption . [A proposed program and implementation plan shall be submitted by each plant to the Department not later than 180 days after the effective date of these amended regulations.]

[The Department shall establish a schedule of compliance for each existing primary aluminum plant. Each schedule shall include the dates by which compliance shall be achieved, but in no case, shall full compliance be later than the following dates:

(a) Existing plants shall comply with emission standards in section 340-25-265(3) by January 1, 1977;

(b) Existing plant shall comply with emission standards in section 340-25-265(1) by no later than January 1, 1986, pending a review by the Commission as described in section 2340-25-265(5).]

[(5) The Commission shall review, by no later than December 31, 1981, the feasibility of applying subsection 340-25-265(4)(b) based on the conclusions regarding:

(a) The then current state of the art of controlling emissions from primary aluminum plants;

(b) The progress in controlling and reducing emissions exhibited at that time by then existing aluminum plants;

(c) The need for further emissions control at those facilities based on discernible environmental impact of emissions up to that time.]

Special Problem Areas

340-25-270 The Department may require more restrictive emission limits than the numerical emission standards contained in rule 340-25-265 for an

individual plant upon a finding by the Commission that the individual plant is located, or is proposed to be located, in a special problem area. Such more restrictive emission limits for special problem areas may be established on the basis of allowable emissions per ton of aluminum produced or total maximum daily emissions to the atmosphere, or a combination thereof, and may be applied on a seasonal or year-round basis.

Highest and Best Practicable Treatment and Control Requirement

340-25-275 In order to maintain the lowest possible emissions of air contaminants, the highest and best practicable treatment and control currently available shall in every case be provided, but this section shall not be construed to allow emissions to exceed the specific emission limits set forth in [rule] Section 340-25-265.

Monitoring

340-25-280(1) Each primary aluminum plant constructed and operated on or before January 1, 1973, shall submit and conduct [within sixty (60) days after the effective date of these amended regulations] a detailed, effective monitoring program. The program shall include regularly scheduled monitoring and testing by the plant of emissions of gaseous and particulate fluorides and total particulates. [The plant shall take and test a minimum of three (3) representative emisson samples each calendar month.] Each plant shall test emissions from each operating potline once

per calendar month. A minimum of three (3) such tests shall be taken each month. All such testing shall include simultaneous sampling of control system(s) and/or roof vents. Anode bake oven control systems shall be tested at least once per month. [The samples] All tests shall be taken [at] on prespecified [intervals] dates. A schedule for measurement of fluoride levels in forage and ambient air shall be submitted. The Department shall establish a monitoring program for [the] each plant which shall be placed in effective operation within niney (90) days after written notice to the plant by the Department of the established monitoring program.

(2) Each primary aluminum plant proposed to be constructed and operated after January 1, 1973, shall submit a detailed preconstruction [of] and post-construction monitoring program as a part of the air contaminant discharge permit application.

(3) All monitoring methods used to demonstrate compliance with these rules, including sampling and analytical procedures, must be filed with and approved by the Department. Where applicable, methods in the Department Source Test Manual, including, but not limited to Methods 5 and 7 for particulates and Methods 13A or 13B for fluorides, shall be used.

Reporting

340-25-285(1) Unless otherwise authorized in writing by the Department, data for each source and station included in the approved monitoring program shall be reported by each primary aluminum plant within thirty (30) days of the end of each calendar month [for each source and station included in the approved monitoring program] as follows:

(a) Ambient air: Twelve-hour concentrations of gaseous fluoride in ambient air expressed in micrograms per cubic meter of air, and in parts per billion (ppb); also 28-day test results using calcium formate ("limed") paper expressed in micrograms of fluoride per centimeter squared per cubic meter ($ug/-cm^2m^3$).

(b) Forage: Concentrations of fluoride in forage expressed in parts per million (ppm) of fluoride on a dried weight basis.

(c) Particulate emissions: Results of all emission sampling conducted during the month for particulates, expressed in grains per standard dry cubic foot, in pounds per day, and in pounds per ton of aluminum produced. The method of calculating pounds per ton shall be as specified in the approved monitoring programs. Particulate data shall be reported as total particulates and percentage of fluoride ion contained therein.

(d) Gaseous emissions: Results of all sampling conducted during the month for gaseous fluorides. All results shall be expressed as [hydrogen] fluoride <u>ion</u> in micrograms per cubic meter and pounds per day of [hydrogen] fluoride <u>ion</u> , and in pounds <u>of fluoride ion</u> per ton of aluminum produced.

(e) Other emissions and ambient air data as specified in the approved monitoring program.

(f) Changes in collection efficiency of any portion of the collection or control system that resulted from equipment or process changes.

(2) Each primary aluminum plant shall furnish, upon request of the Department, such other data as the Department may require to evaluate the plant's emission control program. Each primary aluminum plant shall report the value of each emission test performed during that reporting period, and shall also immediately report abnormal plant operations which result in increased emission of air contaminants.

(3) No person shall construct, install, establish, or operate a

primary aluminum plant without first applying for and obtaining an air contaminant discharge permit from the Department. Addition to, or enlargement or replacement of, a primary aluminum plant or any major alteration thereof shall be construed as construction, installation, or establishment.

VICTOR ATIYEH
GOVERNOR

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

Attachment III
Notice of Public Hearing
and Statement of Need
for Rulemaking

Prepared: March 30, 1982
Hearing Date: May 14, 1982

NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT:

Proposed Changes of Rules
Pertaining to Primary Aluminum Plants

The Department of Environmental Quality will hold a public hearing on proposed revisions to air pollution rules for existing primary aluminum plants. Both Martin Marietta Aluminum in The Dalles and Reynolds Metals Company near Troutdale can comply with the proposed revisions. No change in existing air quality and no violations of ambient air standards will occur in the communities as a reult of the proposed revisions.

WHAT IS THE DEQ PROPOSING?

Interested parties should request a copy of the complete proposed rule package. Some highlights are:

** Existing aluminum plants will not have to meet state emission limits for new plants.

** All present emission limits applicable to Martin Marietta Aluminum in The Dalles will remain the same.

** Particulate emission limits based on current emission rates will be established for the Reynolds Metals Company plant near Troutdale.

WHO IS AFFECTED BY THIS PROPOSAL:

The two existing aluminum plants in Oregon.

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 May 14, 1982.

Oral and written comments may be offered at the following public hearing:

City	Time	Date	Location
Portland	10:00 a.m.	5-14-82	Yeon Building 522 SW Fifth Avenue Room 1400

WHERE TO OBTAIN ADDITIONAL INFORMATION:

Copies of the proposed rules may be obtained from:

Fredric A. Skirvin
DEQ Air Quality Division
Box 1760
Portland, Oregon 97207
(503)-229-6414

LEGAL REFERENCES FOR THIS PROPOSAL:

This proposal amends OAR 340-25-255 through 340-25-285. It is proposed under authority of ORS 468.020.

This proposal does not affect land use as defined in the Department's coordination program with the Department of Land Conservation and Development.

FURTHER PROCEEDINGS:

After public hearing the Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted regulations 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 June 11, 1982 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need and Fiscal Impact Statement are attached to this notice.

FAS:a
AA1989.2 (1)

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

Need for the Rule

It has been determined that existing aluminum plants cannot feasibly meet state emission limits for new plants. After installing $31,000,000, Reynolds Metals Company exceed present rules. The proposed revisions will resolve both of these problems without adversely impacting existing ambient air quality or violating ambient standards.

Principal Documents Relied Upon

1. Hearing Officer's report and record from November 9, 1981 public hearing.

2. Staff report to EQC, Agenda Item No. H, April 16, 1982 meeting.

Fiscal and Economic Impact Statement

Since additional control equipment will not be necessitated, the proposed revisions have no fiscal impact on either existing aluminum plants or small businesses.

FAS:a
AA1989.3 (1)

SIP.A (12/79)

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: Director

Subject: Agenda Item I, April 16, 1982, EQC Meeting

Request for an Extension of a Variance by Mazama Plywood Company, Sutherlin, from OAR 340-25-315(1)(b), Veneer Dryer Emission Limits.

Background

Mt. Mazama Plywood Company, by letter of February 15, 1982, requested an extension of variance from OAR 340-24-315(1)(b), Veneer Dryer Emission Limits. The Commission has granted Mt. Mazama Plywood Company a variance and extension of variance from this rule on March 21, 1980 and July 17, 1981 respectively. The July 17, 1981 EQC action was subject to the following conditions:

1. By October 1, 1981, submit a control strategy for all three veneer dryers.
2. By March 1, 1982, issue purchase orders for the necessary control equipment.
3. By November 1, 1982, begin construction of the veneer dryer controls.
4. By July 1, 1983, complete construction and demonstrate compliance.
5. Submit quarterly, corporate, financial reports until purchase orders have been issued.
6. If the Department determines that the veneer dryer emissions cause significant adverse impacts on the community or airshed, the variance may be revised or revoked.

The Company, by letter of September 17, 1981, submitted the following final control strategy (but did not submit detailed plans):

1. Continue its on-going program of roof patching and replacement of door seals in the dryers to help reduce fugitive emissions.
2. By March 1, 1982, issue purchase orders to Georgia Pacific Corporation for the Georgia Pacific Emission Eliminator.
3. By November 1, 1982, begin installation of the veneer control equipment.
4. By July 1, 1983, complete construction and demonstrate compliance.

The strategy was approved by the Department on September 17, 1981. The Company has failed to issue purchase orders (Item 2) and is requesting a 6 months extension.

Mt. Mazama Plywood Company has provided accounting (non-certified) information in conjunction with their request for variance extension. This is a consolidated report of Mazama Timber Products, Inc. and subsidiaries, the status of this subject source being referenced as Mt. Mazama (copy Attachment #1). The cost of dryer emission control and continued plywood manufacturing losses are claimed to be the cause of current compliance schedule default.

Evaluation

Mt. Mazama Plywood Company has missed the purchase order issuance compliance increment date of March 1, 1982 stipulated in Condition 8(b) of Air Contaminant Discharge Permit #10-0022. The Company has recently installed baghouse controls on the dry fuel system that was inspected March 8, 1982 and certified in compliance by Southwest Region staff. The plant site is located in an attainment area and the Department has no knowledge of any ambient air quality violations brought on as a result of past veneer dryer non-compliance. It is however, located in downtown Sutherlin in a strip area of commercial and industrial land uses.

This plywood manufacturing facility has three (3) veneer dryers; two that utilize steam and the third is direct wood-fired with an Energex suspension burner. The latter direct wood-fired dryer uses ground ply trim for fuel, a waste by-product of the manufacturing process.

Industry has found it difficult to control direct wood-fired veneer dryers using dry ply trim as a fuel, particularly if it is contaminated with a high salt content glue residue. "Wet ionic" or electric precipitator type controls have been used in many cases to capture the sub-micron salt particulates formed in the combustion process. Steam dryers have been simpler to control with the application of medium energy wet scrubbers and filter apparatus.

The Mt. Mazama Plywood Company mill is not a modern facility. The dryers are old and leaky which would add to the costs of effective control. The plant has changed from producing a high grade sanded product to producing sheating typically made from lower grade veneers. Given marginal plywood market conditions, it is doubtful that this plant could, on its own, support any significant capital and operational expenditures for veneer dryer control equipment. Whether or not the parent company, Mazama Timber Products, Inc., would carry that economic burden is unknown except for the fact that they haven't to date.

The facility is the last veneer drying plant in Southwest Region without an implemented control strategy. The extent that this represents an unfair market advantage to competitors is unknown to the Department. The plant is claimed to employ in excess of 150 workers. Unemployment in Douglas County is currently in the 19 - 20% range.

Summation

1. Mt. Mazama Plywood Company in Sutherlin, Oregon has by letter of February 15, 1982 requested an extension of their Commission-granted variance to OAR 340-23-315(1)(b), Veneer Dryer Emission Limits.

2. The Commission has granted two (2) previous variances to Mt. Mazama Plywood based upon economic hardship as provided for in ORS 468.345(1)(c).

3. Mt. Mazama Plywood Company has three (3) veneer dryers that have been found in noncompliance with OAR 340-25-135, Veneer Dryer Emission Limits.

4. Mt. Mazama Plywood Company is the only plywood manufacturer in the Southwest Region operating uncontrolled and under variance for veneer dryer emission controls installation.

5. Mt. Mazama Plywood Company has furnished the Department with a financial statement showing a $136,445 loss for Mt. Mazama Plywood Company for the month of January 1982 and a collective year to data loss of $2,523,820 for Mazama Timber Products, Inc., the parent company (reporting basis is on the fiscal year).

6. Controlling the fine particulate emissions from the direct wood-fired veneer dryer, controlling the two steam-fired veneer dryers, and sealing or rebuilding of all dryers would be a capital-intensive venture for a financially sound company.

7. There is technology available to effectively control the emissions from Mt. Mazama Plywood Company's three (3) veneer dryers that has been applied to other plywood mills in Southwest Region.

8. Mt. Mazama Plywood Company is located in an attainment area and does have process and boiler emissions controlled to Department standards.

9. Mt. Mazama Plywood Company employs 150-plus employees in an area now averaging 19-20% unemployment.

10. Mt. Mazama Plywood Company has not submitted detailed plans or issued purchase orders for controlling emissions from the three veneer dryers.

Director's Recommendation

Based upon the summation, it is recommended that conditions 1. and 2. of the variance granted by the EQC on July 17, 1981 be amended as follows:

1. By July 1, 1982, submit to the Department approvable detailed plans and specifications for control of the veneer dryer emissions.

2. By September 1, 1982, issue purchase orders for the necessary control equipment and affirm maintenance of schedule increments 3, 4 and 5 of the July 17, 1981 variance.

Bill

William H. Young

G.Grimes:h
(503) 776-6010
March 24, 1982
Attachment:
2/15/82 Mt. Mazama Letter and financial statement

EQC SUR - 2/22/82

File 10-0022

Mt. Mazama Plywood Co.

POST OFFICE BOX 738 • SUTHERLIN, OREGON 97479 • TELEPHONE 503/459-9555

February 15, 1982

Department of Environmental Quality
P.O. Box 1760
Portland, Oregon 97207

Re: Final Control Strategy - File No. 10-0022

Gentlemen:

The continuing depressed state of the plywood industry makes it impossible for Mt. Mazama Plywood Company to meet the increment schedule of the air quality emission variance granted by the E.Q.C. on July 17, 1981. Financial conditions have not improved and it is not possible for us to obtain funding for a project of this magnitude.

Please accept this letter as a request for a six month extension of all increments of the existing variance. Upon your approval our revised control strategy will be as follows:

1. Continue our on-going program of roof patching and replacement of door seals in the dryers to help reduce fugitive emissions.

2. By September 1, 1982, issue purchase orders to Coe Manufacturing Company for the Georgia Pacific Emission Eliminator.

3. By May 1, 1983, begin installation of the emissions control equipment.

4. By January 1, 1984, complete construction and demonstrate compliance.

Our ability to meet these planned dates will of course depend on substantial improvement in current economic conditions. If you need further information please contact Arnold Jackson at this office.

Sincerely,

Jim Kline
General Manager

JK:mk

MAZAMA TIMBER PRODUCTS, INC. & SUBSIDIARIES
DECEMBER 31, 1981
Individual and Combined Balance Sheet

	MAZAMA	EVSC	MT. MAZAMA	COMBINED TOTAL	ELIMINATIONS	TOTAL
ASSETS:						
Current Assets						
Cash		9,262	1,755	11,017		11,017
Accounts & notes receivable	831,517	48,561	435,603	1,315,681		1,315,681
Inventories (LIFO)	1,505,787	75,298	664,385	2,245,470		2,245,470
Timber, timber deposits at cost, less depletion	6,967,491			6,967,491		6,967,491
Prepaid expenses	2,405,497	50,037	57,973	2,513,507		2,513,507
Other current assets	1,200,846			1,200,846		1,200,846
Total current assets	12,911,138	183,158	1,159,716	14,254,012		14,254,012
Properties at cost, less accum. dep'n.	8,755,246	6,292,971	2,987,668	18,035,885		18,035,885
	4,213,896	805,612	1,479,594	6,499,102		6,499,102
	4,541,350	5487,359	1,508,074	11,536,783		11,536,783
Timber, timberlands, at cost less dep'n., less current portion	4,216,013			4,216,013		4,216,013
Other Assets						
Notes receivable non-current	1,395,123		1,150	1,396,273		1,396,273
Cash surrender value life ins.						
Advances to affiliates and to stockholders	8,939,352	101,914	1,121,000	10,162,266	6,568,372	3,593,894
Investment in affiliate	444,510			444,510	252,750	191,760
Deposits	26,900			26,900		26,900
Organizational costs	1,085			1,085		1,085
	10,806,970	101,914	1,122,150	12,031,034		5,209,912
Total Assets	32,475,471	5772,431	3,789,940	42,037,842		35,216,720

MAZAMA TIMBER PRODUCTS, INC. & SUBSIDIARIES
DECEMBER 31, 1981
Individual and Combined Balance Sheet

	MAZAMA	EVSC	MT. MAZAMA	COMBINED TOTAL	ELIMINATIONS	TOTAL
LIABILITIES:						
Current liabilities	$	$		$		$
Book overdraft	656,951	56,275		713,226		713,226
Current debt			1,009,523	1,009,523		1,009,523
Current portion-long term debt	10,601,666	899,000	94,272	11,594,938		11,594,938
Timber and road contracts payable	5,080,752			5,080,752		5,080,752
Accounts payable	537,832	172,696	564,040	1,274,568		1,274,568
Accrued payroll and related taxes	207,974	191,782	151,997	551,753		551,753
Other accrued liabilities	1,772,527	449,364	49,389	2,271,280		2,271,280
Income taxes payable					1,019,177	(1,019,177)
Account with affiliate	2,238,667	4,329,705		6,568,372	6,568,372	
Total current liabilities	21,096,369	6,098,822	1,869,221	29,064,412		21,476,863
Long Term Debt	4,549,542	1,488,493	297,203	6,335,238		6,335,238
Timber and Road Contracts Payable, Non-Current Portion	4,156,979			4,156,979		4,156,979
Total Liabilities	29,802,890	7,587,315	2,166,424	39,556,629		31,969,080
STOCKHOLDER'S EQUITY:						
Common Stock	50,000		277,750	327,750	252,750	75,000
Retained Earnings:						
Beginning of Year	4,297,583	(1,164,111)	1,400,776	4,534,248		4,534,248
Current Year Income (Loss)	(1,509,820)	(650,773)	(55,010)	(2,215,603)	(1,019,177)	(1,196,426)
Less cost of treasury stock	165,182			165,182		165,182
	2,672,581	(1,814,884)	1,623,516	2,481,213		3,247,640
Total Liabilities and Equity	$ 32,475,471	$ 5,772,431	$ 3,789,940	$ 42,037,842		$ 35,216,720

INDIVIDUAL AND COMBINED INCOME STATEMENT
DECEMBER 31. 1981

	MAZAMA	EVSC	MT. MAZAMA	COMBINED TOTAL	ELIMINATIONS	CONSOLIDATED MONTH	CONSOLIDATED YEAR TO DATE
Sales							
Log	$ 115,410			$ 115,410		$ 115,410	$ 2,031,800
Net	865,156	150988	1,058,344	2,074,488	168,889	1905,599	15205,013
	980,566	150,988	1,058,344	2,189,898	168,889	2,021,009	17,236,813
Cost of Sales	967,187	169,750	1,046,789	2,183,726	168,889	2,014,837	16923821
Gross Profit	13,379	(18,762)	11,555	6,172		6,172	312,992
Gen'l. & Admin. Expense	48,523	44,068	30,692	123,283		123,283	766,560
Operating Profit (Loss)	(35,144)	(62,830)	(19,137)	(117,111)		(117,111)	(453,568)
Depreciation	57,000	29,000	21,000	107,000		107,000	587,000
Interest Expense	193,692	29565	19,533	242,790		242,790	1,496,300
	(285,836)	(121,395)	(59,670)	(466,901)		(466,901)	(2,536,868)
Other Income	80,048		(3963)	76,085		76,085	321265
Income (Loss) Before Taxes	$ (205,788)	$ (121,395)	$ (63,633)	$ (390,816)		(390816)	(2215603)
Provision for Taxes (Benefit)						(179775)	(1,019,177)
Net Income (Loss)						$ (211,041)	$ (1196426)

MAZAMA TIMBER PRODUCTS, INC. & SUBSIDIARIES
JANUARY 31 1982
Individual and Combined Balance Sheet

	MAZAMA	EVSC	MT. MAZAMA	COMBINED TOTAL	ELIMINATIONS	TOTAL
ASSETS:						
Current Assets						
Cash	$	$ 9,262	$ 1,763	$ 11,025		$ 11,025
Accounts & notes receivable	991,390	49,491	531,636	1,572,517		1,572,517
Inventories (LIFO)	1,389,844	68,955	602,576	2,061,375		2,061,375
Timber, timber deposits at cost, less depletion	6,968,245			6,968,245		6,968,245
Prepaid expenses	2,520,227	44,238	49,407	2,613,872		2,613,872
Other current assets	102,942			102,942		102,942
Total current assets	11,972,648	171,946	1,185,382	13,329,976		13,329,976
Properties at cost, less accum. dep'n.	8,730,130	6,292,971	2,990,168	18,013,269		18,013,269
	4,270,896	834,612	1,500,594	6,606,102		6,606,102
	4,459,234	5,458,359	1,489,574	11,407,167		11,407,167
Timber, timberlands, at cost less dep'n., less current portion	4,194,863			4,194,863		4,194,863
Other Assets						
Notes receivable non-current	1,501,167		1,050	1,502,217		1,502,217
Cash surrender value life ins.						
Advances to affiliates and to stockholders	8,816,149	103,463	991,154	9,910,766	6,506,257	3,404,509
Investment in affiliate	444,510			444,510	252,750	191,760
Deposits	26,900			26,900		26,900
Organizational costs	1,085			1,085		1,085
	10,789,811	103,463	992,204	11,885,478		5,126,471
Total Assets	$ 31,416,556	$ 5,733,768	$ 3,667,160	$ 40,817,484		$ 34,058,477

MAZAMA TIMBER PRODUCTS, INC. & SUBSIDIARIES
JANUARY 31, 1982
Individual and Combined Balance Sheet

	MAZAMA	EVSC	MT. MAZAMA	COMBINED TOTAL	ELIMINATIONS	TOTAL
LIABILITIES:						
Current liabilities	$	$	$	$		$
Book overdraft	359,826	30,702		390,528		390,528
Current debt			999,585	999,585		999,585
Current portion-long term debt	10,511,723	899,000	94,272	11,504,995		11,504,995
Timber and road contracts payable	4,933,633			4,933,633		4,933,633
Accounts payable	772,299	186,615	583,413	1,542,327		1,542,327
Accrued payroll and related taxes	340,646	216,529	162,564	719,739		719,739
Other accrued liabilities	1,049,946	455,011	50,947	1,555,904		1,555,904
Income taxes payable						
Account with affiliate	2,105,852	4,400,405		6,506,257	6,506,257	
Total current liabilities	20,073,925	6,188,262	1,890,781	28,152,968		21,646,711
Long Term Debt	4,510,994	1,488,493	289,308	6,288,795		6,288,795
Timber and Road Contracts Payable, Non-Current Portion	4,202,725			4,202,725		4,202,725
Total Liabilities	28,787,644	7,676,755	2,180,089	38,644,488		32,138,231
STOCKHOLDER'S EQUITY:						
Common Stock	50,000		277,750	327,750	252,750	75,000
Retained Earnings:						
Beginning of Year	4,297,583	(1,164,111)	1,400,776	4,534,248		4,534,248
Current Year Income (Loss)	(1,553,489)	(778,876)	(191,455)	(2,523,820)		(2,523,820)
Less cost of treasury stock	165,182			165,182		165,182
	2,628,912	(1,942,987)	1,487,071	2,172,996		1,920,240
Total Liabilities and Equity	$31,416,556	$5,733,768	$3,667,160	$40,817,484		$34,058,477

INDIVIDUAL AND COMBINED INCOME STATEMENT
JANUARY 31, 1982

	MAZAMA	EVSC	MT. MAZAMA	COMBINED TOTAL	ELIMINATIONS	CONSOLIDATED MONTH	CONSOLIDATED YEAR TO DATE
Sales							
Log	$ 176,183		$	$ 176,183		176,183	$ 2,207,983
Net	1,217,607	$ 101,021	1,100,898	2,419,526	174,039	2,245,487	17,450,500
	1,393,790	101,021	1,100,898	2,595,709	174,039	2,421,670	19,658,483
Cost of Sales	1,319,188	130,250	1,165,419	2,614,857	174,039	2,440,818	19,364,639
Gross Profit	74,602	(29,229)	(64,521)	(19,148)		(19,148)	293,844
Gen'l. & Admin. Expense	51,450	37,146	26918	115,514		115,514	882074
Operating Profit (Loss)	23,152	(66,375)	(91,439)	(134,662)		(134,662)	(588,230)
Depreciation	57,000	29,000	21,000	107,000		107,000	694,000
Interest Expense	260,479	32,728	20,850	314,057		314,057	1,810,357
	(294,327)	(128,103)	(133,289)	(555,719)		(555,719)	(3,092,587)
Other Income	250,658		(3,156)	247,502		247,502	568,767
Income (Loss) Before Taxes	$ (43,669)	$ (128,103)	$ (136,445)	(308,217)		(308,217)	(2,523,820)
Provision for Taxes (Benefit)							
Net Income (Loss)						(308,217)	(2,523,820)

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: Director

Subject: Agenda Item No. K, April 16, 1982, EQC Meeting

Request For Variance From OAR 340-25-315(1)(b) Veneer Dryer Emission Limits, For Champion International Corporation, Lebanon Plywood Division, Steam Heated Dryers 1-6

Background and Problem Statement

Champion International Corporation owns and operates a plywood manufacturing mill at Lebanon, Oregon (Lebanon Plywood Division), an area in compliance with all ambient air quality standards. The Company also operates a hardboard plant at the site, (Lebanon Hardboard Division).

The Company produces plywood from raw logs processed on site and from green veneer produced at other Champion mills in the northwest. There are six steam heated dryers and one wood-fired veneer dryer on site. Emissions from the wood-fired dryer are currently being controlled by recycle and incineration. Emissions from the steam heated dryers are collected and incinerated in the Company's two hogged fuel boilers which supply heat for the hardboard plant and the plywood mill.

Due to an industry-wide shortage of hogged fuel, the Company is unable to operate the boilers at sufficient rates to adequately control emissions from all six steam dryers. At the present firing rates, the volume of exhaust gases from the six dryers exceeds the combustion air requirement of the boilers.

Under normal operating conditions, the hogged fuel boilers steam at a rate of 130,000 lbs/hr. Due to the current fuel shortage, the steaming rate average varies between 85,000 and 105,000 lbs/hr depending on the quantity and quality of fuel available. The Company indicates a minimum of 125,000 lbs/hr is needed to adequately control emissions from all six steam heated dryers.

Champion has requested a variance to allow diverting the emissions from a minimum of one and a maximum of three steam heated dryers to the atmosphere in lieu of routing them through the hogged fuel boiler control system. Accordingly, Champion also requested permission to operate the same dryers in violation of the Department's veneer dryer opacity emission limits for a period of eighteen months. This is the minimum time period anticipated by Champion for recovery of the forest products industry. (See Attachments 1 and 2).

The Commission is authorized by ORS 468.345 to grant variances from Department Rules if it finds strict compliance is inappropriate for one of the reasons specified in the Statute, including (a) conditions exist that are beyond the control of the persons granted such variance; and (b) strict compliance would result in substantial curtailment or closing down of a business, plant or operation.

Alternatives and Evaluation

Department rule OAR 340-25-315(1) established April 1, 1980 as the final compliance date for meeting the 20% maximum, 10% average opacity limits for steam heated veneer dryers (this corresponds to the deadlines set under the Clean Air Act Amendments of 1977). The boiler incineration system at Lebanon was approved by the Department and installation completed in 1977, well in advance of the deadline.

Subsequent Department inspections verified compliance with the 10% average, 20% maximum opacity limits up until February, 1981, when uncontrolled emissions from the number five dryer were observed. In a letter dated March 2, 1981, Champion indicated hogged fuel shortages forced them to abort the number five dryer to atmosphere. At that time, the Company indicated they were trying to purchase outside fuel to supplement hogged fuel, sanderdust, and ply trim produced on site and thus increase steam production and improve operation of the incineration system.

Since that time, the following steps have been taken to secure additional fuel:

1. Fuel is purchased on the open market whenever possible. To date, hogged fuel has been brought in from as far away as Klamath Falls and St. Helens, Oregon.

2. Chips and other material used for raw material (furnish) at the hardboard mill are sometimes diverted to the boilers for fuel, on an emergency basis, to maintain fire in the boilers (a minimum of 85,000 lbs/hr steaming rate is needed to operate the hardboard dryers and plywood plant).

3. Logs stored in the mill pond were pulled, bark removed for use as fuel, and the logs returned to the pond for storage.

4. Spoils (bark mixed with dirt) removed during log pond dredging have been burned as fuel. This practice had to be discontinued due to operational problems with the boiler (grates plugging, etc.).

5. Partially decomposed woodwaste (with questionable heat value) is being dug up from a landfill and hauled in from St. Helens for fuel.

DEQ staff have contacted several companies who use hogged fuel and two suppliers of fuel. In all cases, these contacts indicate that there is a shortage of fuel with supplies of outside open market material available only on an intermittent basis. Prices vary from $20 to $40/wet unit ($40 to $80/bone dry unit), plus shipping expenses.

Fuel dealers indicate that they are having a difficult time securing supplies of hogged fuel to sell.

Even with the above steps, the Company has been unable to meet plant steam requirements, and has had to take several actions to reduce the steam demand on the boilers. These actions have unfortunately also decreased the boiler's capability to handle dryer gases:

1. All steam operated pumps and motors which could have been switched to electricity (increasing overall power cost) have been switched.

2. The steam turbine powered electrical generators have been shut down (increasing overall power cost).

3. Building space heating (steam) has been cut back to the minimum acceptable to the labor unions.

4. Natural gas booster burners in the hardboard plant furnish dryers are set at maximum to make up for lost heat from the boiler heat exchanger system.

These steps serve to underscore the magnitude of the fuel shortage at Lebanon.

Regional staff have discussed several alternatives to dryer bypasses with the Company. Champion indicates the following probable effects should these alternatives be implemented:

1. Curtail veneer drying to the number of dryers which could be efficiently controlled by the boiler incineration system.

   Effect: Layoffs of operations personnel of the affected dryers would be the result. With curtailment of veneer drying, plywood production would be substantially cut back for lack of dry veneer. The Lebanon Plywood Division has been marginally

profitable during the current economic slump, and such a cut back would likely place the Division in a submarginal profit status, possibly causing shutdown of the Division.

Other ripple effects would likely be (depending on the number of dryers shut down) closing of one or more Company owned veneer mills in Idanha and Mapleton, Oregon; Morton, Washington; and Redding, California. All these mills supply green veneer for processing at Lebanon.

2. Curtail production at the hardboard mill and divert raw material (chips, etc.) to the boilers for fuel.

   Effect: Any substantial cut back in production would limit this Division's ability to operate efficiently (i.e., raw material used for boiler fuel would leave insufficient material for production). If such were the case, shutdown of hardboard is likely. Layoffs of plant personnel would be likely in any curtailment.

3. Install separate (additional) emission controls to handle the dryer gases which cannot be incinerated in the boilers.

   Effects: Large expenditure of funds ($0.5 to $1.0 million at 15-20% interest) to design, construct and operate a control system. This would likely intensify the already marginal economic status of the Plywood Division, with shutdown likely.

   The system would be energy intensive (medium efficiency scrubber). Lead time for design, construction and installation would likely take 12-18 months.

While the Department does not look forward to a reversal of air quality gains at Champion, Lebanon, staff must agree that the circumstances and conditions which exist are neither the fault of nor under the control of the Company. It would seem unreasonable to require substantial curtailment or shutdown of the Plywood mill given the current unemployment picture in the east Linn County area. It appears unreasonable to require installation of additional controls on any bypassed dryers at this time due to the high capital costs and extended installation time involved.

Therefore, the Department concurs with Champion's contention that they are unable to comply with the Department's veneer dryer emission limits due to conditions beyond their control, and that strict compliance would result in substantial curtailment or closing down of their mill. With recovery of the wood products industry, the problem should be resolved.

The Department supports this variance request for a period of approximately 1 year because of the Company's past efforts to alleviate the fuel shortage and their commitment to continue to pursue an adequate source of fuel. If the hogged fuel situation does not improve within this time frame, the

Company should consider either alternate controls or fuel types or sources.

Bypassing of one or more of the dryers will result in distinct visible plumes (as before implementation of controls). If three of the dryers are bypassed, the estimated annual increase in emissions would be 19 tons of particulate and 0.7 tons of organics. Total annual plywood plant emissions are estimated at 298 tons particulate and 40 tons organics. However, staff does not expect resultant health impacts or public nuisance conditions to exist during the period of this variance.

If granted, the variance should be subject to the following conditions:

1. Operation of the existing boiler incineration system at the maximum efficiency to accomodate the most dryers possible.

2. Submission of quarterly reports detailing fuel availability, steaming rates, number of dryers aborted and forecast for the next quarter.

3. If the Department determines that the veneer dryer emissions cause significant adverse impact on the airshed, this variance may be revised or revoked.

Summation

1. Since 1977, Champion International Corporation has operated a control system for six steam heated veneer dryers. The system is based upon incineration of dryer gases in two hogged fuel boilers. Department inspections have shown compliance with opacity limits (20% maximum, 10% average) up until February, 1981, when fuel shortages began to affect the ability of the incineration system to adequately control emissions from all dryers. Emissions from one veneer dryer were diverted directly to atmosphere, resulting in violation of the opacity limits.

2. Champion has taken steps to supplement fuel supplies, including purchase of outside fuel when available, burning of pond dredgings and partially decomposed woodwaste from landfills, in an effort to keep the incineration system at maximum efficiency in order to meet opacity limits. These steps have proven unsuccessful, and additional dryers must now be periodically bypassed.

3. Champion has requested a variance to operate from one to three steam heated veneer dryers in violation of the Department's 20% maximum, 10% average opacity limits for a period of 18 months.

4. Alternatives to bypassing dryer emissions (shut down affected dryers; use chips from Hardboard Division for fuel; and installation of a scrubber for bypassed dryers) are considered unacceptable to the Company and would likely cause curtailment or shutdown of the plywood mill.

5. The Department concurs with Champion that their inability to maintain continuous compliance is caused by factors beyond their control and that strict compliance would likely result in curtailment or shutdown of the plywood mill.

6. The Department realizes that emissions will increase with granting of this request, but expects that no health impact or public nuisance will be caused during the period of the variance. The estimated annual increase in emissions with three dryers uncontrolled is 19 tons of particulate and 0.7 tons of organics. Total plant emissions are estimated at 298 tons of particulate and 40 tons of organics.

Director's Recommendations

Based upon the findings in the Summation, it is recommended that a variance from OAR 340-25-315(1)(b), Veneer Dryer Emission Limits, be granted to Champion International Corporation, Lebanon Plywood Division, for operation of up to three steam heated veneer dryers in violation of the Department's emission limits, subject to the following conditions:

1. The veneer dryer control system (hogged fuel boiler incineration) will be operated at maximum efficiency, consistent with fuel availability and quality, to accomodate the most dryers possible.

2. Quarterly reports will be submitted to the Department detailing fuel availability and costs, steaming rates, number of dryers, aborted and forecast for the next quarter.

3. If the Department determines that the veneer dryer emissions cause significant adverse impact on the airshed, this variance may be revised or revoked.

4. This variance shall expire July 1, 1983.

Bill

William H. Young

Attachments: 1. Variance request dated February 25, 1982
2. Variance request addendum dated March 18, 1982

AA1976 (1)
F.A. Skirvin:a
229-6414
March 24, 1982

P O Box 10228
1600 Valley River Drive
Eugene, Oregon 97440
503 687-4629

ATTACHMENT 1

Champion
Champion International Corporation

February 25, 1982

Mr. Dale Wulffenstein
State of Oregon
Department of Environmental Quality
895 Summer Street, N.E.
Salem, OR 97319

RE: Boiler Incineration - Veneer Dryer Emission Control (6-Steam Heated)
Lebanon, Oregon

Dear Mr. Wulffenstein:

As previously discussed, frequent upset conditions in recent months have been experienced at Lebanon's veneer dryer incineration system for dryers 1 through 6. Regretfully, this situation reflects the current economic trend; however, it is viewed by us as temporary in nature.

The present non-compliance status is a function of the boilers' inability to accept the veneer gases from all six dryers because of the boilers' reduced operating levels. The reduced levels are caused by the following:

1. Reduced fuel availability; thereby, requiring lower boiler firing rates.

2. Reduced fuel quality (higher moisture and ash) causing lower combustion temperatures and subsequently less tolerance to moisture laden gases.

Fuel production at Lebanon has reduced by approximately one-third because of the curtailment of one shift in the plant's green end. To the extent possible, fuel is being purchased to make up this deficit. This purchased fuel is difficult to obtain, is variable in quality, appears to have a higher ash content, and averages about 10 percent wetter than the fuel we generate.

Combining these factors, management was forced to discontinue operating the turbine generators and other miscellaneous steam-driven equipment wherever possible. Experience indicates that this resulted in lowering the average boiler steaming rates from approximately 16,000 to 24,000 pph below normal to remain consistent with fuel availability.

The ultimate result of a lower steaming rate and wetter fuel is an unstable firing condition in the boilers if the total veneer gas volume is utilized. This occurs primarily because the wet veneer gases increase the overall heat load to a point beyond that which the boilers can handle and still maintain required combustion temperatures. Consequently, fugitives increase and venting occurs.

Therefore, it is now necessary that we request a variance to Lebanon's Air Discharge Permit #22-5196 as related to the veneer gas incineration system. It is requested on the basis that: a) Conditions exist that are beyond our control, and b) strict compliance would result in substantial curtailment of production. Since it is extremely difficult to predict a specific date for resuming compliance on a routine basis, no expiration date can be given; however, we would continue to incinerate to the extent possible. Conditions relating to the variance could be reviewed on a quarterly basis or some other time frame consistent with the Department's requirements.

If you have any questions or need additional information, please contact myself or Jack Hayes at Lebanon.

Sincerely,

Ralph Heinert

Ralph Heinert
Assistant Manager
Western Environmental Affairs

RH/se
cc Al Smith - Eugene
Rod Bradley - Lebanon
Jack Hayes - Lebanon
Ed Clem - Stamford
Harry Bartels/File

P.O. Box 10228
1600 Valley River Drive
Eugene, Oregon 97440
503 687-4629

ATTACHMENT 2

Champion
Champion International Corporation

March 18, 1982

Mr. Dale Wulffenstein
State of Oregon
Department of Environmental Quality
Willamette Valley Region
895 Summer Street, N.E.
Salem, OR 97310

RE: AQ-Champion Building Products
Lebanon Plywood Division
ACDP 22-5196; Linn County
Request for Variance

Dear Mr. Wulffenstein:

This will respond to your letter of March 12, 1982 and our phone conversations concerning our request for a variance for the veneer dryer/boiler incineration system at Lebanon.

Under the present economic conditions of manufacturing and the availability of boiler fuel, we are unable to comply with the Oregon opacity regulations. Due to boiler fuel deficiencies, in both quantity and quality, we are unable to meet consistently a 20% maximum opacity per stack and with a 10% average opacity from all stacks from the six steam dryers.

We must continue to operate in our presently curtailed mode of operation, but wish, at the same time, to avoid any citation and possible subsequent cease and desist order for any violation that might occur.

Manufacturing at our Lebanon mill is complex even under our present curtailed production scheduling. Additional economic problems would be created if we were to attempt to manufacture with only a portion of our steam dryers in operation. At present, we have curtailed our green end manufacturing to, essentially, a one-shift operation in order to produce nine- to twelve-foot veneers for long length panels. Very few mills in the industry are capable of producing such panels. The curtailment of the veneer peeling operations has, of course, affected our fuel supply for the steam boilers and is, in a large measure, responsible for our need for a variance.

We have been purchasing fuel wherever we can, but fuel is in short supply. In recent times we have obtained fuel from as far away as Beaver Marsh (between Chemult and Klamath Falls) and St. Helens, Oregon for delivered high prices of $75.00 and $85.00 per bone dry unit. Our separate hardboard operation utilizes wood chips, shavings and sawdust as raw material for their manufacturing, and is dependent on the central boiler plant for steam and fiber dryer energy. Hardboard's raw material costs are currently averaging $57.00 per bone dry ton which converts to $68.00 per bone dry unit. This, as you can see, is less than our current long-haul hog fuel costs, but hardboard raw materials are also in short supply. Robbing hardboard of raw materials for fuel could be expected to curtail that operation very seriously.

We have also considered converting our peeler cores to hog fuel rather than selling them for re-manufacturing into 2" x 4" studs. The economics, at present, are favorable; however, the mechanics of such a conversion are not good. The lack of a transfer system plus suitable equipment for reducing the cores to fuel would raise our conversion costs considerably from solid wood unit cost to that of fuel. Also, the volume of the cores produced under today's conditions is not large enough to justify further consideration.

At the present time, we are receiving, at Lebanon, veneer from three company mills, plus veneer purchased on the open market. Economics is the reason why we curtailed our veneer operation at Lebanon and closed our green veneer mill at Idanha. We must purchase or transfer veneer at the lowest possible price in order to keep the Lebanon mill open.

The complexity of the proper flow of materials through the Lebanon plant makes it impractical to curtail segments of the manufacturing, such as drying, without a serious cost effect on the balance of the operation. This, plus costs, is the reason why we cannot dry veneer on overtime and use fewer dryers in an attempt to maintain productivity and compliance. The green end section of the plant can, however, be curtailed when it is better economics to purchase veneer on the open market.

Any curtailment of plywood production at Lebanon, however, is always reflected in the volume of veneer obtained from our other mills and in that purchased from other sources.

The economics of our Lebanon mill is a part of the Corporation's financial position as reported in the quarterly and annual reports. We wish it reflected a brighter picture. We have been advised that the Corporation's freeze on capital expenditures can be expected to continue through 1983. We respectfully request, then, that a variance be granted for that period.

Sincerely,

H. Bartels

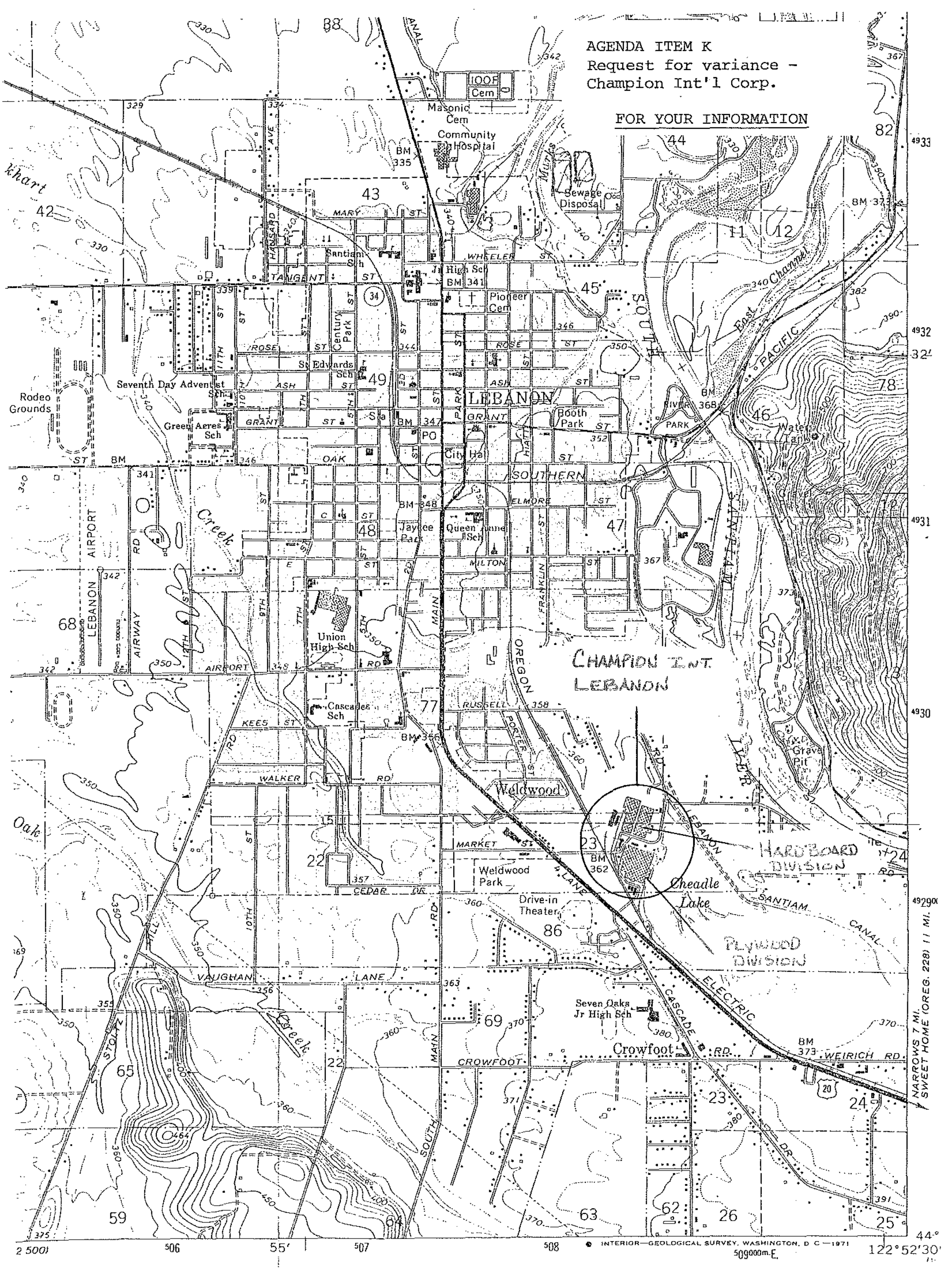
Harry Bartels
Manager
Western Environmental Affairs

HB/se

cc Rod Bradley-Lebanon
Phil Grayson-Lebanon
Jack Hayes-Lebanon
Al Smith-Eugene
Ralph Heinert/File

AGENDA ITEM K
Request for variance -
Champion Int'l Corp.

FOR YOUR INFORMATION



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: Director

Subject: Agenda Item No. L, April 16, 1982, EQC Meeting

Proposed Adoption of Amendments to Hazardous Waste Management Rule, OAR 340-63-125

Background and Problem Statement

At the December 4, 1981, Commission meeting, the staff proposed amendments to those portions of the Hazardous Waste Management Rules dealing with waste pesticides and empty (hazardous material) container management. Although the majority of the proposed rule changes were adopted, reservations existed as to the adequacy of the design guidelines the Department proposed to use in approving plans for waste pesticide management facilities required by the new rules. As a result of those reservations, the proposed rules were amended to require Commission adoption of the design standards. On March 5, 1982, the Commission authorized the staff to hold a public hearing on a proposed set of general performance standards for the design of waste pesticide management facilities. Also subject to public comment were a proposed set of permit application procedures.

The authorized hearing was held on March 18, 1982 in Rm. 1400 of DEQ's offices in Portland, Oregon. Six (6) people were at the hearing, five people presented testimony and five letters of comment were received. The Hearings Officer's Report is Attachment III. The Department's response to comments is contained in Attachment IV.

Authority to adopt Hazardous Waste Management Rules is ORS 459.440.

Alternatives and Evaluation

As the staff originally considered this matter, three alternatives were discussed:

1. No design guidelines or standards would be provided to the regulated community.

2. Detailed technical design standards would be developed.

3. Generalized performance standards would be developed.

After evaluating all the pros and cons, the staff decided on generalized performance standards because they would be flexible enough to account for the variety of site conditions, types of waste pesticides and differing waste volumes that would be experienced at the 50 or so facilities to be constructed. Furthermore, the staff originally proposed the performance standards as guidelines rather than rules since the initially installed facilities will demonstrate the probable state-of-art controls for this class of pollution-abatement facilities.

Throughout the public involvement process supporting the rules adopted on December 4, 1981, the staff received positive comments on its decision to only adopt guidelines for the design of waste pesticide management facilities.

Subsequent to the December 4, 1982, Commission meeting, the staff met with representatives of the Department of Transportation - Division of Aeronautics and the Oregon Agricultural Aviation Association on January 14, 1982. It was again concluded that generalized performance standards would provide specific enough design objectives while retaining flexibility to account for specific site conditions. It was based on this January 14, 1982 meeting that the staff decided to propose our original guidelines and application procedures as administrative rules.

The majority of comments received at the March 18, 1982 public hearing continued to support the concept of general performance standards rather than detailed construction standards. While preferring to see the performance standards as guidelines rather than rules, no major objections were raised to the staff's current proposal.

On the other hand, numerous objections were raised to adopting permit application procedures as administrative rules. Substantial concern existed that once adopted, the proposed permit application procedures would be interpreted to mean an Environmental Impact Statement would have to be prepared for each proposed waste management facility. To insure that our intentions are not misunderstood, we are no longer proposing the permit application procedures as administrative rules. Instead, we intend to use the standard water quality permit application form and convert the proposed permit application procedures into a fact sheet to assist an applicant proposing a waste pesticide management facility.

Summation

1. At its December 4, 1981, meeting, the Commission adopted revisions to the Department's waste pesticide and empty container management rules. At that time, the Commission directed the staff to develop for adoption design standards for waste pesticide management facilities.

2. On January 14, 1982, the staff met with the State Division of Aeronautics and the Oregon Agricultural Aviation Association to discuss a set of design standards. Consensus was reached that any standards adopted should be flexible enough to account for a variety of site conditions, types of waste pesticides and differing waste flows.

3. On March 18, 1982, a public hearing was held on a proposed set of general performance standards (see Appendix A in Attachment I). Comments received supported the proposed general performance standards.

4. At the same March 18th hearing, substantial objections were raised to adopt permit application procedures as administrative rules. As a result, those proposed procedures have been deleted from the proposed rule amendment. Instead, the staff intends to use the standard water quality permit application form supplemented by a fact sheet pertaining to issues of importance when proposing to submit an application for a waste pesticide management facility.

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt the proposed amendments to the Department's Hazardous Waste Management Rule OAR 340-63-125.

Bill

William H. Young

Attachments I. Proposed Rule OAR 340-63-125
II. Statement of Need
III. Hearings Officer's Report
IV. Department's Response to Public Comment

Richard P. Reiter:o
229-6434
March 25, 1982
S0868 (1)

Attachment I
Agenda Item No. L
April 16, 1982, EQC Meeting

PROPOSED REVISION TO OREGON ADMINISTRATIVE RULE
OAR 340-63-125

DEFINITIONS

340-63-011 As used in these rules unless otherwise specified:

(1) "Aeration" means a specific treatment for an empty volatile material container consisting of removing the closure and placing in an inverted position for at least 5 days.

(2) "Aquatic TLm" and "aquatic median tolerance limit" and "Aquatic LC_{50}" and "median aquatic lethal concentration" means that concentration of a substance which is expected in a specified time to kill 50 percent of an aquatic test population. Aquatic TLm and aquatic LC_{50} are expressed in milligrams of the substance per liter of water.

(3) "Authorized container disposal site" means a solid waste disposal site that the Department has authorized by permit to accept all decontaminated hazardous material or waste containers for disposal.

(4) "Container" means any package, can, bottle, bag, barrel, drum, tank or any other enclosure which contains a hazardous material or waste. If the container has a detachable liner or several separate inner containers, only those liners and containers contaminated by the hazardous material or waste shall be considered for the purposes of these rules.

(5) "Department" means the Department of Environmental Quality.

(6) "Dermal LD_{50}" and "median dermal lethal dose" means a measure of dermal penetration toxicity of a substance for which a calculated dermal dose is expected in a specified time to kill 50 percent of a population of experimental laboratory animals. Dermal LD_{50} is expressed in milligrams of the substance per kilogram of body weight.

(7) "Dispose" or "disposal" means the discharge, deposit, injection, dumping, spilling, leaking or placing of any hazardous waste into or on any land or water so that such hazardous waste or any hazardous constituent thereof may enter the environment or be emitted into the air or discharged into any waters of the State as defined in ORS 468.700. NOTE: The foregoing is not to be interpreted to authorize any violation of ORS Chapter 459 and these rules.

(8) "Domestic use" or "household use" means use in or around homes, backyards and offices; but excludes commercial pest control operations.

(9) "Empty container"means a container whose contents have been removed except for the residual material retained on the interior surfaces.

(10) "Generator" means the person who, by virtue of ownership, management or control, causes or allows to be caused the creation of a hazardous waste.

(11) "Hazardous waste" means discarded, useless or unwanted materials or residues in solid, liquid, or gaseous state and their empty containers which are classified as hazardous pursuant to ORS 459.410 and these rules. A "hazardous material" is a substance that meets this same definition except that it is not a waste.

(12) "Hazardous waste collection site" means the real property upon which hazardous wastes are stored in accordance with a license issued pursuant to ORS Chapter 459 and OAR Chapter 340, Divisions 62 and 63.

(13) "Hazardous waste disposal site" means the real property upon which hazardous wastes are disposed in accordance with a license issued pursuant to ORS Chapter 459 and OAR Chapter 340, Divisions 62 and 63.

(14) "Hazardous waste management facility" means a hazardous waste collection, treatment, or disposal site; or the solid waste landfill that the Department has authorized by permit to dispose of a specified hazardous waste pursuant to ORS 459.510(3) and OAR Chapter 340, Divisions 62 and 63.

(15) "Hazardous waste treatment site" means a facility or operation, other than a hazardous waste disposal site, at which hazardous waste is treated in accordance with a license issued pursuant to ORS Chapter 459 and OAR Chapter 340, Divisions 62 and 63.

(16) "Hydrocarbon" means any compound composed solely of hydrogen and carbon.

(17) "Inhalation LC_{50}" and "median inhalation lethal concentration" means a calculated inhalation concentration of a substance that is expected in a specified time to kill 50 percent of a population of experimental laboratory animals. Inhalation LC_{50} is expressed in milligrams per liter of air for gas or vapor and in milligrams per cubic meter for a dust or mist.

(18) "Jet rinsing" means a specific treatment for an empty container using the following procedure:

(a) A nozzle is inserted into the container, or the empty container is inverted over a nozzle such that all interior surfaces of the container can be washed.

(b) The container is rinsed using an appropriate diluent.

(19) "Manifest" means the document used for identifying the quantity, composition, and the origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of storage, treatment, or disposal.

(20) "Multiple rinsing" means a specific treatment for an empty container, repeating the following procedure a minimum of three times.

(a) A volume of an appropriate diluent is placed in the container in an amount equal to at least 10 percent of the container volume.

(b) The container is agitated to rinse all interior surfaces.

(c) The container is opened and the rinse solution drained, allowing at least 30 seconds after drips start.

(21) "Oral LD_{50}" and "median oral lethal dose" means a calculated oral dose of a substance that is expected to kill 50 percent of a population of experimental laboratory animals within a specified time. Oral LD_{50} is expressed in milligrams of the substance per kilogram of body weight.

(22) "Person" means the federal government, the State or public or private corporation, local government unit, public agency, individual, partnership, association, firm, trust, estate, or any other legal entity.

(23) "Pesticide" means any substance or combination of substances intended for the purpose of defoliating plants or for the preventing, destroying, repelling, or mitigating of insects, fungi, weeds, rodents, or predatory animals; including but not limited to defoliants, desiccants, fungicides, herbicides, insecticides, and nematocides as defined by ORS 634.006.

(24) "Phenol" means any mono- or polyhydric derivative of an aromatic hydrocarbon.

(25) "Plant site" means the real property where hazardous waste generation occurs. Two or more parcels of real property which are

geographically contiguous and are divided only by a right-of-way are considered a single site.

(26) "Polychlorinated biphenyl" or PCB" means the class of chlorinated biphenyl, terphenyl, higher polyphenyl, or mixtures of these compounds, produced by replacing two or more hydrogen atoms on the biphenyl, terphenyl, or higher polyphenyl molecule with chlorine atoms. PCB does not include chlorinated biphenyls, terphenyls, higher polyphenyls, or mixtures of these compounds, that have functional groups other than chlorine unless that functional group is determined to make the compound dangerous to the public health.

(27) "Public-use airport" means an airport open to the flying public considering performance and weight of the aircraft being used, which may or may not be attended or have service available.

(28) "Store" or "storage" means the containment of hazardous waste for a temporary specified period of time, in such a manner as not to constitute disposal of such hazardous waste.

(29) "Transporter" means any motor carrier engaged in the transportation of hazardous waste.

(30) "Treatment" means any method, technique, activity, or process, including but not limited to neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous

waste so as to neutralize such waste or to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume.

(31) "Volatile" means having an absolute vapor pressure of greater than 78 mm Hg at 25 C^{o}. For the purpose of these rules, all fumigants are considered to be volatile.

(32) "Waste pesticide" means discarded, useless or unwanted materials or residues including, but not limited to, spray mixtures, diluted pesticide formulations, container rinsings and pesticide equipment washings.

340-63-125 Toxic Waste.

(1) Pesticides and Pesticide Manufacturing Residues.

(a) Waste containing pesticide or pesticide manufacturing residue is toxic if it has any of the following properties:

(i) Oral toxicity: Material with a 14-day LD_{50} equal to or less than 500 mg/kg.

(ii) Inhalation toxicity: Material with a one-hour inhalation LC_{50}

equal to or less than 2 mg/l as a gas or vapor or a one-hour inhalation LC_{50} equal to or less than 2 mg/l as a gas or vapor or a one-hour inhalation LC_{50} equal to or less than 200 mg/m^3 as a dust or mist.

(iii) Dermal penetration toxicity: Material with a 14-day dermal LD_{50} equal to or less than 200 mg/kg.

(iv) Aquatic toxicity: Material with 96-hour aquatic TLm or 96-hour aquatic LC_{50} equal to or less than 250 mg/l.

(b) A generator may dispose of up to 10 pounds or one gallon of waste containing pesticide or pesticide manufacturing residue per month in accordance with Section 63-135 of this part.

(c) [Subsequent to March 1, 1982, waste] Waste pesticide generated at a "Public-use Airport," distributorship or other permanent base of operation, (excluding temporary heliport), shall be discharged to a permitted facility or as otherwise approved by the Department, pursuant to performance standards [adopted by the Commission.] in Appendix A.

(d) Waste pesticide generated at a site other than provided in OAR 340-63-125 (1)(c) may be discharged to a permitted facility or sprayed on the ground, provided:

(A) It is sprayed through a nozzle under pressure and is moving at a sufficient rate so as not to saturate the ground;

(B) The generator owns or controls the management of the ground, or receives permission from the manager, owner, or controller of the ground;

(C) The spray site location will not endanger ground or surface waters, or pose a hazard to humans, wildlife (game and non-game animals) or domestic animals; and

(D) if applied to agriculture land, the pesticide deposit will not result in excessive residual amounts or prohibited types of residues in current or subsequent crops.

(2) Halogenated Hydrocarbons and Phenols (excluding polymeric solids).

(a) Waste containing halogenated hydrocarbons (excluding polychlorinated biphenyls) or halogenated phenols is toxic if it contains 1% or greater of such substances.

(b) A generator may dispose of up to 200 pounds of waste containing halogenated hydrocarbons or halogenated phenols per month (excluding polychlorinated biphenyls and pesticides) in accordance with Section 63-135 of this Part.

(c) Waste containing polychlorinated biphenyls is toxic and shall be managed in accordance with 40 CFR 761.

(3) Inorganics

(a) (i) Wastes containing cyanide, arsenic, cadmium or mercury is toxic if it contains 100 ppm or greater of such substance or 200 ppm or greater of the sum of such substances.

(ii) Waste containing hexavalent chromium or lead is toxic if it contains 500 ppm or greater of such substance or 1000 ppm or greater of the sum of such substances.

(iii) The Department may exempt certain inert materials containing these substances (e.g.: leaded glass, foundry sand) on a case-by-case basis.

(b) A generator may dispose of up to 10 pounds of waste containing cyanide, arsenic, cadmium or mercury or up to 200 pounds of waste containing hexavalent chromium or lead per month in accordance with Section 63-135 of this Part.

(c) Mining wastes are exempt from the rules of this Division.

(4) Carcinogens.

(a) Waste containing carcinogens as identified by OSHA in 29 CFR 1910 is toxic. NOTE: See Appendix B for specific compounds and concentrations.

(b) The identified carcinogenic wastes shall be managed as hazardous or as otherwise approved by the Department. NOTE: Several of the above wastes have relatively low acute toxicity but are classified hazardous because of their persistence and propensity toward bioaccumulation in the environment.

340-63-130 EMPTY CONTAINERS

(1) Except as provided in Sections (2) and (3), discarded, useless or unwanted empty containers are hazardous if they were used in the transportation, storage, or use of a hazardous material or hazardous waste.

(2) Empty containers from hazardous materials or hazardous wastes that have been used for domestic purpose may be disposed with other household refuse.

(3) Empty rigid containers, including but not limited to cans, pails, buckets or drums constructed of metal, plastic, glass, or fiber need not be managed as hazardous if they are decontaminated, verified, and recovered or disposed as follows:

(a) Decontamination consists of OAR 340-63-130(3)(a)(i) and (ii):

(i) Removal of residual material by:

(A) Jet or multiple rinsing at the time of emptying.

(B) Aeration of volatile materials from fumigant containers;

(C) Chemical washing methods such as those used to recondition metal drums, or to remove ultra low volume (ULV) residues;

(D) Other industry recommended procedures as may be approved by the Department.

(ii) Altering the container structure before recovery or disposal by puncturing or removing both ends and crushing (multi-trip containers recovered for reconditioning or reuse are exempted from this part).

(b) Verification consists of no observable residue on the interior of the container, and no observable turbidity (less than 5 Nephelometric turbidity units) in a sample rinse when a dilutent, which does not solubilize the residue, is placed in the container to fill 2 to 5 percent of its volume and is agitated for at least 30 seconds.

(c) Recovery consists of:

(A) Recycling or reuse at scrap metal collection, metal remelting, drum reconditioning, chemical manufacturing, distributing or retailing facility or as otherwise approved by the Department.

(d) Disposal consists of:

(A) Containers from DANGER or POISON label pesticides or other materials or wastes identified as POISON by 49 CFR 172.101, if not recovered, shall be taken to an authorized solid waste landfill.

(B) Containers from WARNING or CAUTION label pesticides may be taken to any solid waste landfill that has not been prohibited by the Department from accepting such waste.

(4) Empty non-rigid containers, including paper, paper-laminated and paper-laminated foil bags, need not be decontaminated provided they are disposed of in accordance with the following methods:

(A) Taken to an authorized solid waste landfill; or

(B) Burned in an incinerator or solid fuel fired furnace which has been certified by the Department; or

(C) Open burning in less than 50 pound lots (excepting organometallics) is permitted at the site on the same day of generation or as soon as feasible provided the site is not a "Public-use Airport," distributorship or permanent base of operation and the burning does not emit dense smoke, noxious odor or creates a public nuisance. This activity shall be in compliance with rules in OAR Chapter 340, Division 23, local

fire districts' requirements, and in such a manner as to protect the public health and the environment. The ash and foil liners must be buried after burning.

(D) Farmers may bury empty non-rigid or decontaminated rigid pesticide containers on their own farm provided that:

(i) the containers were generated from their own use.

(ii) the burial location is on flat ground, and not in a swale, and that the site is at least 500 feet from surface waters or any well.

(5) No person shall use or provide for use empty or decontaminated hazardous material/waste containers to store food or fiber intended for human or animal consumption.

340-63-135 SMALL QUANTITY MANAGEMENT

Small quantities of hazardous material or wastes, as specified in Rules 340-63-110, 340-63-115, and 340-63-125, need not be transported to and disposed in a hazardous waste management facility if they are handled in accordance with the following procedure:

(1) The waste shall be securely contained to minimize the possibility of waste release prior to burial.

(2) Persons disposing of hazardous waste from other than domestic or household use shall obtain permission from the waste collector and from permittee before depositing the waste in any container or landfill for subsequent collection or in any landfill disposal. In the event that the waste collector or landfill permittee refuses acceptance, the person disposing of the waste shall contact the Department for alternative disposal instructions.

(3) The waste must be taken to a state-permitted waste disposal site.

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Appendix A

Performance Standards for
Waste Pesticide Management Systems

A. System Design Objectives:

All waste pesticide management systems must satisfy the following three objectives to the greatest extent possible:

(a) Containment of the waste solution to protect groundwater and surface waters.
(b) Detoxification of the waste solution.
(c) Reduction of the volume of the waste solution.

B. System Design Performance Standards:

1. Containment may be demonstrated through any one or combination of:

(a) Physical means (natural or man-made liners).
(b) Chemical means (adsorption-absorption layers).
(c) Other equivalent means.

2. Detoxification may be demonstrated through any one or combination of:

(a) Physical means (solar radiation).
(b) Chemical means (hydrolysis).
(c) Biological means (microbial degradation).
(d) Other equivalent means.

3. Volume reduction may be demonstrated through any one or combination of:

(a) Evaporation.
(b) Evapo-transpiration.
(c) Diversion of surface waters.
(d) Use of dilute solution for product makeup water.
(e) Other equivalent means.

4. Groundwater protection may be demonstrated through any one or combination of:

(a) System design.
(b) Construction materials.
(c) Groundwater monitoring program.

APPENDIX B

The following regulations appear in condensed form and are presented for guidance only. The reader is referred to the appropriate Code of Federal Regulations for the full text.

(1) CFR Title 29, Labor, Part 1910, Occupational Safety and Health Administration, U.S. Department of Labor.

(2) CFR Title 40, Polychlorinated Biphenyls (PCBs), Part 761, U.S. Environmental Protection Agency.

(3) CFR Title 49, Transportation, Parts 100 - 199, U.S. Department of Transportation.

29 CFR 1910.xxxx Carcinogens: A carcinogen means any of the substances listed below, or compositions containing such substances, but does not include compositions containing less than the hazardous concentration of the listed substance.

Section	Substance	Hazardous Concentration (%)
1910.1003	4-Nitrobiphenyl	0.1
1910.1004	alpha-Naphthylamine	1.0
1910.1006	Methyl Chloromethyl ether	0.1
1910.1007	3,3'-Dichlorobenzidine (and salts)	1.0
1910.1008	bis-Chloromethyl ether	0.1
1910.1009	beta-Naphthylamine	0.1
1910.1010	Benzidine (and salts)	0.1
1910.1011	4-Aminodiphenyl	0.1
1910.1012	Ethyleneimine	1.0
1910.1013	beta-Propiolactone	1.0
1910.1014	2-Acetylaminofluorene	1.0
1910.1015	4-Dimethylaminoazobenzene	1.0
1910.1016	N-Nitrosodimethylamine	1.0
1910.1017	Vinyl chloride	1.0
1910.1028	Benzene	0.5
1910.1045	Acrylonitrile (non-polymeric)	1.0

49 CFR 173.24 Standard Requirements for all Packages.

(a) Each package used for shipping hazardous materials shall be so designed and constructed, and its contents so limited, that under conditions normally incident to transportation:
  (1) There will be no significant release of the hazardous materials to the environment;
  (2) The effectiveness of the packaging will not be substantially reduced; and
  (3) There will be no mixture of gases or vapors in the package which could, through any credible spontaneous increase of heat or pressure, or through an explosion, significantly reduce the effectiveness of the packaging.

(b) Materials must be securely packaged in strong, tight packages meeting the requirements of this section.

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(c) Packaging used for the shipment of hazardous materials shall, unless otherwise specified or exempted, meet all of the following design and construction criteria:
(1) Steel used shall be low-carbon, commercial quality steel. Stainless, open hearth electric, basic oxygen, or other similaquality steels are acceptable.
(2) Lumber used shall be well seasoned, commercially dry, and free from decay, loose knots, knots that would interfere with nailing and other defects that would materially lessen the strength.
(3) Welding and brazing shall be performed in a workmanlike manner using suitable and appropriate techniques, materials, and equipment.
(4) Packaging materials and contents shall be such that there will be no significant chemical or galvanic reaction among any of the materials in the package.
(5) Closures shall be adequate to prevent inadvertent leakage of the contents under normal conditions incident to transportation. Gasketed closures shall be fitted with gaskets of efficient material will not be deteriorated by the contents of the container.
(6) Nails, staples, and other metallic devices shall not protrude into the interior of the outer packaging in such a manner as to be likely to cause failures.
(7) The nature and thickness of the packaging shall be such that friction during transport does not generate any heating likely to decrease the chemical stability of the contents.
(8) Polyethylene used must be of a type compatible with the lading and must not be permeable to an extent that a hazardous condition be caused during transportation and handling.

(d) For specification containers, compliance with the applicable specifications of 49 CFR Parts 178 and 179 shall be required in all details except as otherwise specified or exempted.

49 CFR 173.151 Oxidizer. An oxidizer is a substance such as a chlorate, permanganate, inorganic peroxide, or nitrate, that yields oxygen readily to stimulate the combustion of organic matter.

49 CFR 173.151a Organic Peroxide. An organic peroxide is a substance containing the bivalent -O-O- structure and which may be considered a derivative of hydrogen peroxide where one or more of the hydrogen atoms have been replaced by organic radicals. This excludes Forbidden, Class A or Class B explosive or materials specifically exempted by the DOT.

49 CFR 173.240 Corrosive Material. A corrosive material is a liquid or solid that causes visible destruction or irreversible alterations in human skin tissue at the site of contact, or in the case of leakage from its packaging, a liquid that has a severe corrosion rate on steel.
(a) A material is considered to be destructive to or cause irreversible alteration in human skin tissue if, when tested on the intact skin of the albino rabbit, the structure of the tissue at the site of contact is destroyed or changed irreversibly after an exposure period of 4 hours or less.

(b) A liquid is considered to be corrosive if its corrosion rate exceeds 0.250 inch per year on steel (SAE 1020) at a test temperature of 130°F.

49 CFR 173.300 Gases.
(a) A compressed gas is any contained material or mixture having a pressure exceeding 40 p.s.i.a. at 70°F. or, regardless of the pressure at 70°F., having a pressure exceeding 104 p.s.i.a. at 130°F.; or any liquid flammable material having a vapor pressure exceeding 40 p.s.i.a. at 100°F.
(b) A compressed gas is flammable if a mixture of 13 percent or less (by volume) with air forms a flammable mixture or the flammable range with air is wider than 12 percent regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure.

Attachment II
Agenda Item No. L
April 16, 1982, EQC Meeting

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF THE ADOPTION OF AMENDMENTS TO HAZARDOUS WASTE MANAGEMENT RULE, OAR 340-63-125	))))	STATUTORY AUTHORITY, STATEMENT OF NEED, PRINCIPAL DOCUMENTS RELIED UPON AND STATEMENT OF FISCAL AND ECONOMIC IMPACT

1. Statutory Authority: ORS 459.440, which requires the Environmental Quality Commission to adopt rules pertaining to hazardous waste management.

2. Need for the Rule: At its December 4, 1981, meeting, the Commission directed the staff to propose for adoption specific design standards for construction of waste pesticide management facilities.

3. Principal Documents Relied Upon:

   a. The existing Hazardous Waste Management Rule.

   b. Pesticide survey reports:

      i. "A Survey of Pesticide Use and Waste Disposal in Multnomah, Clackamas and Washington Counties," by Gary Hahn

      ii. "Lane County Pesticide Report," by Gary Morse

      iii. "Special Project (Container Survey)," by Cathy Cartmill

   c. EQC Staff Report entitled "Agenda Item No. G, December 4, 1981, EQC Meeting"

4. Fiscal and Economic Impact

   Adoption of the proposed design performance standards should have either no economic impact or a positive economic impact because they will define more clearly the Department's criteria for reviewing engineering plans for waste pesticide management facilities. To the degree that the Department's performance standards are more clearly understood by the regulated community, the ability to comply with previously adopted pollution control requirements should be made easier. Conversely, in the absence of these performance standards, the submission of incomplete and/or inadequate engineering drawings and permit applications is more likely. Submission of revised plans increases the cost of doing business.

ZC242.B

Attachment III
Agenda Item No. L
April 16, 1982, EQC Meeting

To: Environmental Quality Commission

From: Gayla Reese, Hearings Officer

Subject: Public Hearing on Incorporating Performance Standards (Appendix A) and Application Procedures (Appendix B) into the Pesticide Waste Management Rules

On March 18, 1982, a public hearing was held following the mailing of a public notice on March 5, 1982. The meeting was held in Room 1400, DEQ Portland Office, 522 SW Fifth Ave.

Six persons were present at the public hearing. After explaining the purpose of the meeting and answering general questions, five people gave testimony: Jerry Harchenko, Industrial Aviation Services, Inc.; Ray Costello, Oregon Aeronautics Division; Sam Whitney, interested citizen; Paul Jensen, Agri Aviation, Inc.; and Richard Waldren, McMinnville Aviation. The other person who attended the meeting was Mike Sullivan, Oregon for Food and Shelter.

Major points from the hearing were:

1. Performance standards in Appendix A can be complied with and incorporated as rules instead of guidelines.

2. Application procedures in Appendix B should not be incorporated as rules, especially items 1, 3, 4, 5, 8, 9, 10, 11, 12, and 13. DEQ should have flexibility in enforcing these. Items 2, 6, and 7 can be complied with.

3. Appendix B will lead to more regulations and more stringent standards since it provides too much detail and unnecessary items. Because of the complexity, compliance is not economically feasible (will cost up to $5,000 to $10,000 to obtain all the required information and cost more if DEQ requires additional information not stated in the appendix).

4. Appendix B reflects arbitrary implementation and no indication of how successful the procedures will be.

5. DEQ should recommend to EQC that adoption of the Appendices be delayed six months to allow for further study and dialogue with aviation interest groups.

The record was left open until 5:00 p.m., March 22, 1982. Additional written comments were received from five persons: Scott Ashcom, Oregon Farm Bureau Federation; Paul Burket and Ray Costello, Oregon Aeronautics Division; Norman Parker, Western Helicopter Services, Inc.; and Wayne Stringer, Western Agricultural Chemicals Association. Response to written comments are included in the attached Department's Response to Public Comment.

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Attachment IV
Agenda Item No. L
April 16, 1982, EQC Meeting

Department's Response to Public Comments

The following is a summary of comments received in response to proposed amendments to Administrative Rules for Hazardous Waste Management (OAR-63-125) and the Department's response to those comments:

Comment: Most commenters felt that Appendix B (application procedures) are to complex, cumbersome and could cost the applicant $5,000 to $10,000 to obtain all the information required. There was also concern about the arbitrariness of a requirement that the applicant submit any additional information the Department deemed necessary.

Response: The proposed application procedures are patterned after similar procedures utilized in the air, water, solid waste and subsurface programs. The information requested is information that should be considered if a meaningful facility design is going to be prepared. All the information is readily available, either from the applicant (i.e., types and quantities of pesticide waste produced) or from local sources such as soil conservation service (soil profile and natural drainage patterns); extension offices or water resources department (historical climatological and groundwater information); or local planning agencies (land use compatibility statement). The staff does agree, however, that permit application procedures do not have to be adopted as administrative rules and has modified the proposed amendments accordingly. Furthermore, staff has indicated its intent to assist applicants in securing this available information on an as needed basis.

Comment: The amendments are arbitrary, vague, and have no substantial information available showing that they will work.

Response: The Department has proposed general performance standards for waste pesticide management systems which are based on Best Management Practices of the pesticide industry to date. Admittedly they are general in nature, however, its been our understanding that the regulated community preferred the flexibility provided by more general performance standards than detailed construction standards. Staff still feels general performance standards are necessary to account for the variety of site conditions, types of waste pesticides and differing waste volumes that will be experienced. Performance standards give the applicant maximum opportunity to prepare practical, effective solutions consistent with the problem to be solved. We propose no changes to the general performance standards.

Comments: The Department of Environmental Quality should postpone the adoption of proposed amendments to the Hazardous Waste Rules for at least six (6) months to one year. This would enable the Department's staff to determine the real economic impact of these rules and more closely estimate

the total numbers of waste pesticide management systems needed statewide. This time would also help the staff to work with Oregon Aeronautic Division, Oregon Aerial Applicators Association and the chemical industry to develop a more realistic set of performance standards and permit application procedures.

Response: The Department has spent the past two and one-half (2 1/2) years working with Oregon Aeronautic Division, Oregon Aerial Applicators Association, Oregon Agricultural Chemical Association and COSITE developing a realistic set of rules for the management of waste pesticides. Five informal public hearings were conducted around the state in May, 1981, with fifty-five (55) people in attendance. Two formal public hearings were held in August, 1981, with twenty-two (22) people attendance. In addition, the staff has conducted a number of surveys to evaluate the extent of problems and those surveys were so noted in our Statement of Need accompanying the December 4, 1981 proposed rules. It was based on those surveys that we concluded that 50 or less facilities might ultimately be constructed. In that same Statement of Need, we acknowledged the difficulty of estimating probable costs because of the wide variety of conditions that existed from site to site. Further, since the door was left open for non-structural solutions (by the language in 340-63-125(1)(c) that says"... or as otherwise approved by the Department..."), only minimal increases in operational costs may be incurred at some locations. Throughout this lenghty process, the Department had understood that there was broad support for the containment, control, and management of waste pesticides rather than the uncontrolled release to the environment. Even at the March 18, 1982 meeting there seemed continued support for getting these waste pesticides under control. Therefore, rather than a lengthy study to conclude this rulemaking procedure, the staff proposes that that same effort go into an implementation study to determine where facilities are needed, to determine compliance schedules for the installation of permanent management facilities and to identify interim control measures that will minimize public health or environment problems while the permanent solutions are completed. We have been, and still are, prepared to work closely with the regulated community on such a practical implementation program.

While not directly related to the matter of proposed performance standards, two other comments were presented dealing with the rules adopted December 4, 1981.

Comments: The inclusion of equipment washings in the definition of waste pesticide should be struck.

Response: Because of the many different types of chemical formulations, dilutions and the varying degree of toxicity of these rinsings, the Department, feels they need to be managed properly. Although a management facility may be the easiest and surest way of insuring that management OAR 340-63-125(1)(c) does allow the Department to approve other methods of handling these wastes on a case-by-case basis. We don't agree that any rule change is needed to insure practical regulation of these wastes.

Comments: Disagreement with the prohibition of open burning of empty non-rigid containers at public use airports or permanent bases of operations.

Response: We are surprised that this is only now becoming an issue, since this restriction was known during the last two and one-half years of consideration of proposed rule changes. Since there was no apparent concern until recently, we are proposing no change at this time, however, staff will reconsider this matter as we proceed with a complete review of our rules in anticipation of applying for Final Authorization under the Resource Conservation and Recovery Act. Should there be justification for a rule change on this issue, we are prepared to deal with it at that time.

S0866 (1)

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: Director

Subject: Agenda Item No. M , April 16, 1982, EQC Meeting

Public Hearing on Question of Extending Date on Prohibition of Cesspools to Serve New Construction, OAR 340-71-335.

Background and Problem Statement

At its March 13, 1981 meeting the Commission adopted a comprehensive set of administrative rules for on-site sewage disposal, OAR 340-71-100 to 340-71-600. Within this set of rules is a specific rule that deals with cesspools, OAR 340-71-335. Section 2 of this rule prohibits the installation of cesspools to serve new structures after October 1, 1981. During an interim period from October 1, 1981 to January 1, 1985 seepage pit systems may be installed in lieu of cesspools. (A seepage pit system is a septic tank followed by a lined pit constructed similar to a cesspool). The cost of a seepage pit system is estimated to be in the range of $500 greater than the cost of a cesspool.

At its August 28, 1981 meeting, the Commission, at Multnomah County's request, delayed, by temporary rule, the implementation of the cesspool prohibition to March 1, 1982. At its March 5, 1982 meeting, the Commission, again by temporary rule, further delayed implementation to April 16, 1982.

The Commission's decision to delay the implementation date a second time was based upon a request of members of the Home Builders Association of Metropolitan Portland. The Home Builders requested the delay in order that they, along with Multnomah County officials, might explore the adoption, by the county, of a "sewer systems development charge". Under this proposal the systems development charge would be levied in lieu of the requirement that seepage pit systems be used to replace cesspools. In addition, the Home Builders stated that they would investigate, with the county, the question of imposing a "user fee" upon existing cesspools. Funds derived from the systems development charge and the user fee would be dedicated to future sewer construction in the cesspool area.

Alternatives and Evaluation

It is the Home Builders' position that requiring seepage pit systems rather than allowing cesspools for new construction during the interim in which sewers are to be constructed will add to the short and long range sewage disposal costs without providing a measurable level of protection to the groundwater.

It is the Department's position that the installation of seepage pit systems rather than cesspools for new construction will reduce the amount of pollutants entering the groundwater during this interim period prior to sewer construction. However, new construction would be a very small percentage of the total pollutant load entering the groundwater from existing development served by cesspools. The long term objective is to eliminate the pollutant load from existing cesspools from entering groundwater. Any step that enhances the long term objective can be crucial. During a time of fiscal restraint and a shortage of construction funds, it may be appropriate to accept a small increase in pollution load to be discharged to the groundwater if the construction of sewers, which will eventually eliminate the entire problem, will be accelerated.

When the Commission adopted the first temporary rule extending the date for prohibiting cesspools, this action was based on the expectation that Multnomah County, during the following six months would develop a plan for sewering the cesspool area.

Neither the Department nor Multnomah County anticipated the enormity of the undertaking (program and timetable for providing sewerage service) required by the rules. Although considerable progress has been made by the County, the anticipated schedule and financial plan have not been provided, for acceptable reasons.

The Department failed to follow up, as we should have, with the cities of Portland and Gresham. The METRO Master Plan, which the Department has approved, makes these two cities responsible for providing sewer service to parts of the cesspool area.

Progress to date on the more detailed planning, scheduling and financing has been reasonable, although not as rapid as we had hoped.

Not only due to the enormity of the task but also due to the current economic situation, significant additional time will be required to do the detailed planning, scheduling, and financial planning that is necessary for a viable program.

The METRO Master Plan calls for the entire area of concern to be sewered; thus we can accept this plan as meeting the rule for defining where sewers will be provided.

The most recent commitment by the County and the Home Builders to work for a systems development charge ordinance and a user fee for existing cesspools puts a new light on the entire cesspool question. It appears that if the cesspool problem is to be resolved, funds from new sources for sewer construction must be made available. These two proposals, systems development charge and use fee, should provide new revenue sources to partially deal with the problem.

It appears that what is needed is a targeted approach that looks at phased implementation rather than doing the entire project area at once. This means identifying the existing high-density areas: areas likely to be subject to immediate development or redevelopment; the light rail corridor; and planning for extension of sewers to those areas as a first priority.

Alternatives

There appear to be two alternatives for Commission consideration:

(1) Find that progress to date in eliminating cesspools is inadequate, take no action on the proposed rule amendments, and allow the October 1, 1981 prohibition on cesspools to be implemented.

(2) Recognize that the task of developing a plan for sewering the cesspool area is a complex one that requires an extended period of time to develop and implement. Further, it is appropriate to extend the prohibition date on cesspools to coincide with completion of the plan for sewers.

Summation

1. The Commission has adopted a rule, 340-71-335, which prohibits cesspools to serve new construction after October 1, 1981.

2. The October 1, 1981 implementation date has been delayed, by temporary rule, on two occasions. The second temporary rule expires on April 16, 1982.

3. Upon expiration of the temporary rule on April 16, 1982, the cesspool prohibition will become effective, unless the permanent rule is amended.

4. Multnomah County and the Home Builders Association of Metropolitan Portland have requested that the cesspool prohibition date be delayed further to allow time for development of a sewer systems development charge ordinance and to investigate a users fee for existing cesspools.

5. The delay sought by the county and the Home Builders Association may be accomplished by amending the permanent rule, after public hearing.

6. Notice of the Public Hearing before the Commission on April 16, 1982 was published in the Secretary of State's Bulletin April 1, 1982 edition. Additional notice was given by mailing to the Department's on-site sewage mailing list and by news releases. The notice indicated that final action may be taken on April 16, 1982.

Director's Recommendation

Based upon the summation, after public hearing, it is recommended that the Commission amend the permanent rule, OAR 340-71-335, as set forth in Attachment "A", extending the cesspool prohibition date, the rule amendments to be effective upon filing with the Secretary of State.

Bill

William H. Young

Attachment A - Proposed Amendments to OAR 340-71-335
Attachment B - Statement of Need for Rulemaking

T. Jack Osborne:l
229-6218
March 16, 1982

XG1014

ATTACHMENT "A"

Amend OAR 340-71-335 as follows:

340-71-335 CESSPOOLS AND SEEPAGE PITS. (Diagrams 16 and 17)

(1) For the purpose of these rules:

(a) "Cesspool" means a lined pit which receives raw sewage, allows separation of solids and liquids, retains the solids and allows liquids to seep into the surrounding soil through perforations in the lining.

(b) "Seepage Pit" means a "cesspool" which has a treatment facility such as a septic tank ahead of it.

(2) Prohibitions. Cesspools and seepage pits shall not be used except in areas specifically authorized in writing by the Director. After May 1, 1981, the Agent may not grant approvals or permits for cesspools or seepage pits to serve new structures without first receiving written authorization from the Director.

(a) Effective October 1, [1981:] 1982, unless the provisions of paragraph (2)(a)(C) of this rule are met:

Underlined _____ material is added.
Bracketed [ ] material is deleted.

(A) Installation of new cesspools is prohibited. Cesspools may be used only to replace existing failing cesspools.

(B) Seepage pits may be used only on lots created prior to [adoption of these rules] March 13, 1981 , which are inadequate in size to accommodate a standard subsurface system, unless the land use plan for the area anticipates division of existing lots to provide for more dense development and a program and timetable for providing sewerage service to the area has been approved by the Department.

(C) The prohibitions contained in paragraphs (2)(a)(A) and (2)(a)(B) of this rule shall not become effective until January 1, 1985, provided that by October 1, 1982, the appropriate jurisdiction(s) have adopted a system whereby additional funds are collected for each cesspool installation, and the funds collected are used for planning, design and construction of sewers in the cesspool-seepage pit areas.

(b) The governmental entities responsible for providing sewer service to the seepage pit and cesspool areas within Multnomah and Clackamas Counties, as set forth in the METRO Master Plan, shall not later than

Underlined _____ material is added.
Bracketed [ ] material is deleted.

July 1, 1984, submit to the Department, detailed plans, scheduling, priorities, phasing and financial mechanisms for sewering the entire cesspool area.

(c) [(b)] Effective January 1, 1985 [:] , unless this rule is further modified in response to plans required in paragraph (2)(b) of this rule:

(A) Installation of cesspools is prohibited.

(B) Installation of new seepage pits is prohibited.

(C) Seepage pits may be used only to replace existing failing cesspools or seepage pits on lots that are inadequate in size to accommodate a standard subsurface system.

(3) Criteria for Approval. Except as provided for in Section 340-71-335(2) of this rule seepage pits and cesspools may be used for sewage disposal on sites that meet the following site criteria:

(a) The permanent water table is sixteen (16) feet or greater from the surface.

Underlined _____ material is added.
Bracketed [ ] material is deleted.

(b) Gravelly sand, gravelly loamy sand, or other equally porous material occurs in a continuous five (5) foot deep stratum within twelve (12) feet of the ground surface.

(c) A layer that limits effective soil depth does not overlay the gravel stratum.

(d) A community water supply is available.

(4) Construction Requirements.

(a) Each cesspool and seepage pit shall be installed in a location to facilitate future connection to a sewerage system when such facilities become available.

(b) Maximum depth of cesspools and seepage pits shall be thirty-five (35) feet below ground surface.

(c) The cesspool or seepage pit depth shall terminate at least four (4) feet above the water table.

(d) Construction of cesspools and seepage pits in limestone areas is prohibited.

Underlined _____ material is added.
Bracketed [ ] material is deleted.

(e) Other standards for cesspool and seepage pit construction are contained in Rule 340-73-080.

XG1003

Underlined _____ material is added.
Bracketed [ ] material is deleted.

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of the Amendment of Rule OAR 340-71-335, On-Site Sewage Disposal, Cesspools	))))	Statutory Authority, Statement of Need, Principal Documents Relied Upon and Statement of Fiscal Impact

1. Citation of Statutory Authority:

ORS 454.625, which requires the Environmental Quality Commission to adopt rules pertaining to On-Site Sewage Disposal.

2. Statement of Need:

The Environmental Quality Commission has adopted administrative rules which prohibits installation of cesspools to serve new construction after October 1, 1981. That prohibition date has been extended by temporary rule. The temporary rule expires on April 16, 1982. In the event the Commission fails to modify the rule on April 16, 1982, the prohibition on cesspools to serve new construction will go into effect immediately. Multnomah County officials and the Home Builders Association of Metropolitan Portland have requested that the prohibition on cesspools be delayed in order to allow the county and other public entities involved to develop plans for sewering the cesspool area. The proposed rule amendment is in response to that request and would delay the prohibition date to January 1, 1985, provided the public entities involved take certain specified actions during the intervening period.

3. Documents Relied Upon in Proposal of the Rule Amendments:

None.

4. Fiscal and Economic Impacts:

In the event the prohibition date is not extended, developers would be required to use "seepage pit" sewage disposal systems rather than cesspools for new construction. The added cost for seepage pits is estimated to be approximately $500 per system. These costs are expected to be assumed by the developer, in developer-owned projects, or by the buyer in other projects. In lieu of seepage pit system requirements the proposed rule would delay the requirement for use of more costly seepage pit systems, provided the appropriate jurisdiction(s) adopt a system whereby additional funds are collected for each cesspool installation and used for planning, design and construction of sewers in the cesspool-seepage pit area.

William H. Young
Director

XL1474

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: Director

Subject: Agenda Item No. N, April 16, 1982, EQC Meeting

Informational Report - DEQ Activities for Meeting Federal Requirements to Protect Visibility in Class I Areas

Background

Legislation to protect our nation's wilderness heritage began with the National Park Service Act of 1916 and the Wilderness Act of 1964. These Acts set aside areas to be preserved in their natural states, unimpaired by human activities. The protection of the pristine nature of these areas was again addressed in the Clean Air Act Amendments of 1977. The Amendments recognized the importance of "preserving, protecting, and enhancing" the air quality in 158 national parks, national monuments, and wilderness areas in 36 states. These 158 areas are collectively known as Class I areas. In Oregon, twelve Class I areas were designated by Congress. These are shown in the map in Attachment I. Only California has a greater number of Class I areas than Oregon. The importance and value of these Class I areas to Oregon lie not only in the intrinsic value of their beauty but also in their contribution to making tourism Oregon's third largest industry. These areas also are a valuable recreational resource for the inhabitants of Oregon.

The Clean Air Act Amendments recognized the importance of air quality related values such as visibility and set forth as a national goal "the prevention of any future and the remedying of any existing visibility impairment in Mandatory Federal Class I areas" if the impairment is caused by man-made pollutants. The Amendments instructed EPA to promulgate regulations which assure reasonable further progress towards attaining the national visibility goal.

On December 2, 1980 the Environmental Protection Agency (EPA) published a rule (40 CFR 51 Parts 301-307) requiring the states to incorporate visibility protection for Class I areas into their State Implementation Plans (SIPs) by September 2, 1981. The Department felt that it would not be possible to develop a plan, receive adequate public input, and finish the lengthy adoption procedures by September of 1981 with available limited resources. The Department requested, and received, an extension to April 1982 to submit the revised plan.

EPA's rule reqires the states to:

1. Develop a new source review rule to prevent visibility impairment in Class I areas from construction of new or modified major sources.
2. Establish a monitoring program to evaluate visibility in Class I areas.

3. Develop long-term strategies for making reasonable further progress toward the national goal of remedying existing and preventing future visibility inpairment in Class I areas.

In addition to protecting the visibility within the Class I areas, EPA's rule also requires the protection of "integral vistas." Integral vistas are landmarks or panoramas outside the Class I area that are viewed by the visitor inside the Class I areas. These views must be important to the visitor's enjoyment of the Class I area.

EPA determined that their rule would apply to all 12 of Oregon's Class I areas because visibility is an important value in each area.

In accordance with EPA's regulations and because protecting the visibility in the Class I areas is in the interest of the economic and social well being of the State, the Department developed a draft visibility protection plan for Oregon's Class I areas in cooperation with the Oregon State Department of Forestry, the U. S. Forest Service, the National Park Service, and the U. S. Bureau of Land Management. The plan was drafted between February and August of 1981 and was then sent out for informal review by industrial and environmental groups.

During the informal comment period, two events occurred which caused the Department to consider delaying the adoption of the visibility protection plan. The first was the release by EPA of a draft Federal Register in which EPA agreed to consider industrial petitions to change their visibility rule. Petitioners argued that:

1. EPA does not have authority to require new source review for visibility impacts, except under the Prevention of Significant Deterioration program;
2. EPA does not have the authority to extend visibility protection to integral vistas; and
3. EPA does not have the authority to require consideration of smoke management or other controls for area sources.

EPA did not, however, agree to stay the visibility regulations because they impose no immediate regulatory burden on sources. It appears that it will take EPA at least a year to decide on what changes they might make in their rule. The Department tried to draft its plan addressing some of the concerns raised in the petition but felt certain items should not be compromised due to the nature of Oregon Class I areas and potential sources of emissions impacting them. For instance, DEQ felt some limited integral vistas and control program addressing prescribed burning were essential parts of a program to protect visibility in Oregon's Class I areas.

The second event which might impact the Department's plan are the changes in the Clean Air Act (CAA) likely to occur in the on-going reauthorization process. Although Class I area issues are not among the major points currently being considered in the CAA amendments, there have been some thoughts given to changing the integral vista concept.

In light of the above two occurrences, representatives from the U. S. Forest Service, State Department of Transportation, wood products industries, and grass seed growers

strongly suggested that adoption of the plan be suspended until direction is clear from the Federal level. These groups, however, strongly supported implementing an adequate visibility monitoring program. They suggested that plans to begin monitoring in 1982 be carried out so that data would be available on the status of visibility in the Class I area by the time the petitioned issues are resolved. A number of commentors also indicated that the planned monitoring was not adequate and should be expanded. A willingness was indicated by the group to assist in improving the design and even contributing funds or services to support some of the elements.

Alternatives

There are at least three alternatives which could be pursued regarding Class I area visibility protection.

1. Do nothing until the petitions for changing the Federal rule are resolved and the Clean Air Act is reauthorized.

   Pursuing this alternative would technically put the State in violation of Federal rules but conserve limited resources for other activities. In light of strong support for at least beginning to collect a data base of visibility monitoring information, the willingness of EPA to provide some funds for visibility monitoring, and the great value of Class I areas to the State's economic and social well being, this does not appear to be the best alternative.

2. Adopt the visibility protection plan that has already been drafted.

   This alternative would require significant staff and Commission time to adopt the plan because industries have indicated they would oppose a plan which contains some of the elements they have petitioned EPA to reconsider. The draft plan would only do three things immediately: require best available retrofit technology (BART) for existing point sources causing visibility impairment, revise the new source review rules to incorporate a visibility impact analysis for major new or modified source, and establish a monitoring program.

3. Conduct baseline monitoring now and develop the visibility protection plan considering the monitoring results and actions taken on the Clean Air Act and petitions.

   Under this alternative:

   a. $73,000 in EPA special funds are proposed to be used to establish a minimal monitoring network. The proposed network is summarized in Attachment II.

   b. A task force of interested industrial and environmental groups is helping to design a more adequate monitoring system and seek additional funding. This task force is close to making final recommendations. A summary of their preliminary recommendations is contained in Attachment III.

   c. EPA has indicated that it would waive the April 1982 deadline for submitting our draft plan if we agree to do the monitoring.

The monitoring can be carried out without the plan. EPA will continue to review the visibility impacts of new sources under their present visibility rule and there are no major point sources in the State that are causing significant visibility impairment to Class I areas that would necessitate BART. Therefore, not much is lost by not adopting the plan before the petitioned issues are resolved, and in fact, use of very limited resources is avoided in trying to resolve the objections to the plan.

Summation

1. The Clean Air Act instructed EPA to promulgate regulations to assure reasonable progress toward "the prevention of any future and the remedying of any existing visibility impairment" of Class I areas if the impairment was caused by man-made pollutants.
2. EPA has promulgated their visibility protection regulations.
3. The Department, in cooperation with the U.S. Forest Service, Oregon State Department of Forestry, National Park Service, and the U. S. Bureau of Land Management, developed a visibility protection plan in general conformance to Federal regulations.
4. EPA has given preliminary agreement to consider industrial petitions to change their rule and some changes to the Congressional visibility provisions may occur during the Clean Air Act's reauthorization. These changes might affect how Oregon would write its visibility protection plan.
5. Industry opposes the adoption of a State visibility protection plan at this time given the uncertainty of EPA and Congress directions.
6. Industry is supportive of establishing an adequate baseline visibility monitoring program and is willing to help design and possibly provide support to the effort.
7. EPA is willing to waive the deadline for submitting the visibility protection plan if monitoring is conducted. With very limited resources available to devote to the visibility protection plan efforts, this course of action seems the most appropriate path to follow.

Director's Recommendation

This is an informational report and no formal action by the Commission is necessary. However, it is recommended that the Commission confirm the Department's proposed position on this matter, namely:

1. Some limited effort should be directed toward preserving, protecting and enhancing the air quality in Oregon's 12 Class I areas, considering their importance to the State's tourist industry and their value as a nearby recreational resource to the inhabitants to the State of Oregon.
2. Adoption of a complete visibility plan to meet existing Federal rules should be suspended until petitions to EPA and the Clean Air Act reauthorization are resolved.

3. Development and implementation of a baseline visibility monitoring program be immediately pursued with priority given to monitoring in the vicinity of the Mr. Hood, Mt. Jefferson/Three Sisters, and Wallowa wilderness area and Crater Lake National Park.

Bill

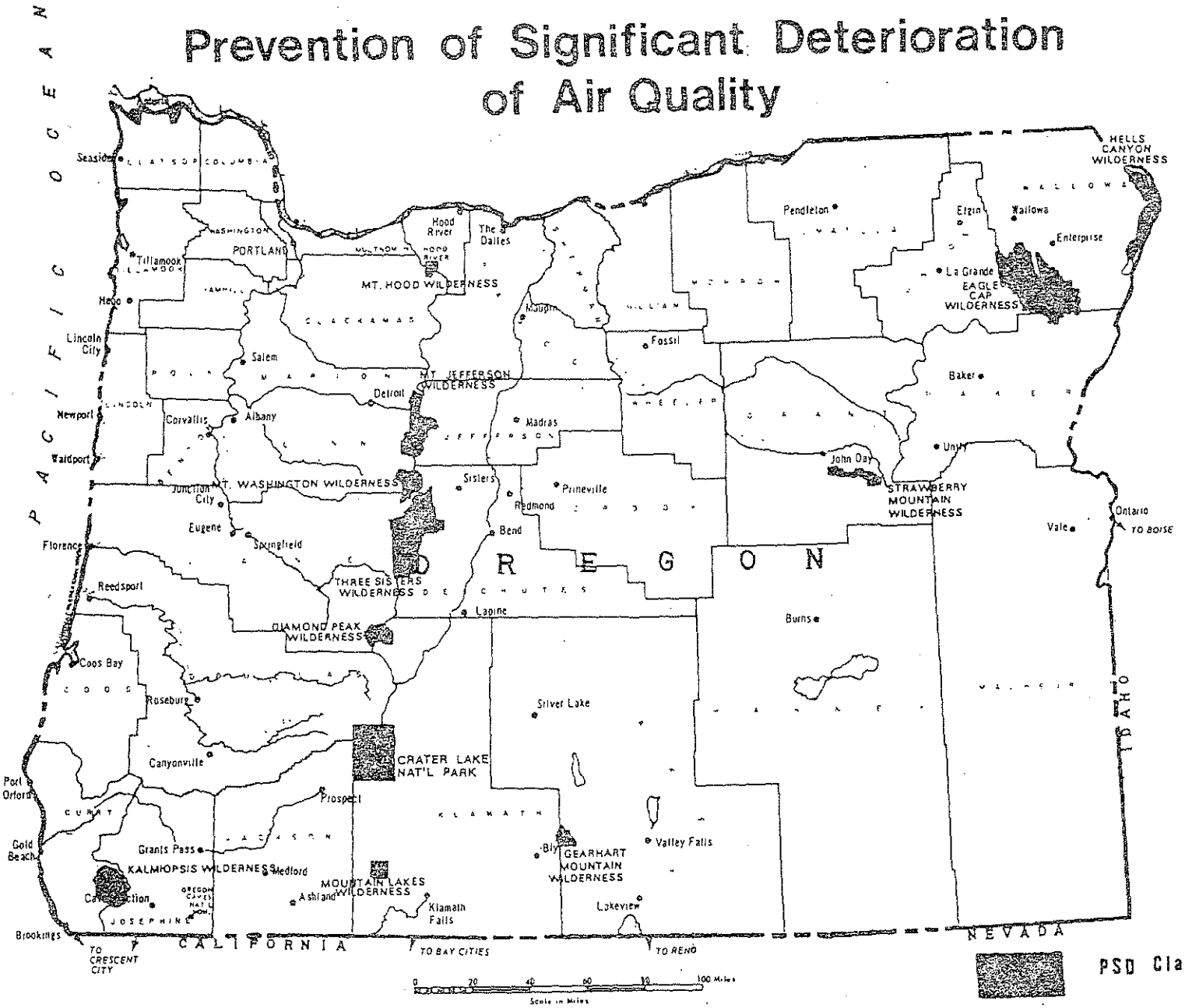
William H. Young

Attachments:

Attachment I - Class I Areas
Attachment II - Currently Funded Monitoring Plan
Attachment III - Recommendations of Visibility Monitoring Task Force

JFK:ahe
(503) 229-6459
March 24, 1982

Prevention of Significant Deterioration of Air Quality



ATTACHMENT I

Thank you for your ongoing diligent work and service on behalf of the citizens of Oregon. Please let us know when we may be of any assistance.

Sincerely,

Bill Ellis, chairperson
61011 Chuckanut Drive
Bend , Oregon 97702

Patricia Porter, vice-chairperson
Julie Bourquin
Roger Cantwell
Bruce Devlin
Don Gallagher
Dr. Jim Mahoney
Norm Schultz
George Spencer
Caryn Talbot
Rep. Tom Throop

EQC
Young

April 10, 1982

Joe Richards, Chairman
Environmental Quality Commission
522 S. W. Fifth Avenue
Portland, Oregon 97207

Dear Chairman Richards:

In 1971 and 1977, the question of whether pumice mining should occur in the Rock Mesa portion of the Three Sisters Wilderness Area was before the Commission.

In 1971, the Commission declared that, " . . . the policy and purpose of the Department of Environmental Quality is to maintain the environment of wilderness areas essentially in a pristine state and as free from air, water, and noise pollution as is practically possible and to permit its alteration only in a matter compatible with recreational use and the enjoyment of the scenic beauty and splendor of these lands by the citizens of Oregon and of the United States.

In 1977, the Commission was asked to join in the Rock Mesa appeal. It declined because the position of the Commission was determined to be what was later articulated in a letter to O.S.P.R.I.G. by the Director that, " . . . the integrity of the wilderness rule can better be maintained in a state administrative or court proceeding in which this agency has full charge of the case. "

In both instances, the Commission's position was consistent with the position universally taken in Central Oregon, that Rock Mesa should be left in its natural state.

During the early 1970's, individuals and groups with economic and environmental interests banded together to protect this vital natural resource. The very viability of the tourism and recreation sector of the Central Oregon economy was at stake and strong lobbying on the part of the Bend Chamber of Commerce was crucial in bringing attention to the issue.

Today, the facts in the case remain the same. The same coalition exists and holds consistently to the position that Rock Mesa remain unmined.

The City of Bend joins with us, a loose coalition of very concerned Central Oregon citizens, in requesting that the Environmental Quality Commission again become familiar with the issue. The issue could again be before the Commission next fiscal year. The interests of the people of Oregon would best be served by a Commission with advanced information on a concern of such far-reaching economic and environmental consequences.

plaintiffs against the Martin Marietta Aluminum Company, and the plaintiffs prevailed in each of the cases brought.

* * * * * * * * * * *

CONCLUSION

The position of the Martin Marietta Aluminum Company advocates nothing positive. It asserts that the existing regulations for new aluminum plants should not be applied to the old aluminum plants. Martin Marietta does not assert what should be applied to old aluminum plants. Presumably Martin Marietta would prefer to have no regulations applied to its aluminum plant in The Dalles.

It is the position of the Wasco County Fruit and Produce League that the statement of Mr. Richard E. Hatchard is a full and adequate basis for the amendment of existing regulations in order to require plant site specific permits to be adopted to control the emissions from existing aluminum plants in Oregon. Those permits should be guided by the best available control technology which can be employed at each aluminum plant, given the circumstances of its continuing operation.

/s/
Arden E. Shenker

AES:mbk

years: the cheap, plentiful energy which brought the aluminum company here no longer is cheap and plentiful. Therefore, in order to save on the consumption of energy and to make more efficient the economic reduction of primary aluminum, Martin Marietta adopted the Sumitomo Aluminum system, which had as its primary characteristic the substantial reduction in the consumption of energy, for economic purposes. The aluminum company's representatives are under oath as to that primary mission for the adoption of the Sumitomo Aluminum system. The secondary benefit from the adoption of the Sumitomo Aluminum system is the ability substantially to reduce emissions. Martin Marietta will have achieved its economic purpose in the conservation of energy and the control of costs with the operation of the Sumitomo Aluminum system. Consequently, those two reasons, litigation and energy saving, both of which are economic reasons, have resulted in the substantial reduction of emissions. It should be the office and purpose of the existing and continuing regulations of the State of Oregon to see that the standards and pressures for cleansing the environment are not abandoned, when the standards and pressures forced by the private sector have been met to date.

C. Need.

The Martin Marietta statement cites two reasons for not needing any additional requirements of the Oregon Administrative Rules for the control of fluoride emissions. One reason cited is from an excerpt of the testimony of Dr. Timothy Facteau, from that same litigation last fall, that emission levels now are low. The second reason is from a report provided by Dr. Ibrahim Hindawi, from a report in 1976, that measured emissions in the ambient environment were low. When "low emission measurements" are accompanied by millions of dollars of damage, the reason for continuing control of fluoride emissions becomes cyrstal clear! In fact, Dr. Facteau's view is that based upon his experiments over the last ten years he believes that fluorides at the levels measured during that period of time, in The Dalles, were responsible for the damages incurred. Obviously the triers of fact in the litigation in which Dr. Facteau testified agreed as to the culpability of the fluoride emissions from the Martin Marietta Aluminum plant in The Dalles. The aluminum company has had that issue resolved against it in every single (and collective) law suit. We will be pleased to provide a copy of the transcript of Dr. Facteau's testimony, should you desire to receive it. Moreover, Dr. Hindawi also testified in that same trial last fall. The burden of his testimony was that a likely explanation for the continuing damage suffered is in the synergistic affects of fluorides and other elements in the environment. Again, we would be happy to provide the testimony of Dr. Hindawi, should you desire it. It is significant that both Dr. Facteau and Dr. Hindawi were called as witnesses for the

The statement of Martin Marietta Aluminum with respect to the primary aluminum plant regulations also requires some comment.

A. State of the Art.

The Martin Marietta statement asserts that it now has reduced its fluoride emissions to 1.4 pounds of fluoride per ton of aluminum produced. Martin Marietta argues that that is as low as it is feasible for the aluminum company to reduce its emissions. What that translates to mean is that 1.4 pounds of fluoride per ton of aluminum produced is as low as that aluminum company wishes to reduce its emissions, so far as requirements of this Department of Environmental Quality and this Environmental Quality Commission of the State of Oregon are concerned. In fact, the emissions reports filed by the Martin Marietta Aluminum Company show that it regularly has been able to reduce its emissions to less than 1.4 pounds of fluoride per ton of aluminum produced, and, those reports demonstrate, the aluminum company on its own published data now should be able to meet the existing aluminum plant standards for new aluminum plants. Even if the aluminum company's arguments were true, however, that simply would require that the regulation be 1.4 pounds of fluoride per ton of aluminum produced, rather than 1.0 pounds. In any case, therefore, the present limitation of 2.5 pounds obviously is misplaced as applied to this company.

B. Progress.

The Martin Marietta statement notes that over the last decade it has cut its emissions in half. That certainly is progress. Moreover, it is a reasonably accurate reading of vast quantities of data, on the average. What the statement omits, however, is why the aluminum company has so reduced its emissions. The reasons are twofold. First, during all of the time until 1981, described in Martin Marietta Aluminum's statement, it has been constantly in litigation from its neighbors, who have sued for and obtained millions of dollars worth of damages for the effects of fluorides on the neighboring properties. The litigation referred to above, ending in December of 1980 and in January of 1981, also involved claims for millions of dollars worth of damage, which went to jury verdicts in favor of the claimants, against the aluminum company, in every case presented to the jury. That litigation pressure no longer is being imposed upon that aluminum company, in the same fashion. Secondly, the aluminum company obviously recognized what every other aluminum company, particularly in the Pacific Northwest, has recognized in recent

Protection Agency was correct, of course, it should be well below that standard of 0.8 pounds. By contrast, the Oregon Administrative Rules would permit a standard more than twice as high as 0.4 pounds, and in excess of the 0.8 pound standard by a factor of more than 25%.

4. The second point made by Mr. Byrne in his November 18 letter is that he is not aware of any confidential information with respect to "emission data." Mr. Hatchard's statement, at page 5, however, is a broader reference than to emission data alone. Mr. Byrne, of course, is aware of all of the confidential data, reams of it, for it was supplied through him for Mr. Hatchard's review. Mr. Byrne continues to be disingenuous in his references to his own data. However, some of the emissions information is now public, for it was not subject to any confidentiality order. For example, documentary exhibits received in evidence in that same trial in the federal court in the Fall of 1980 established that the Sumitomo Aluminum Company in Japan was able to limit emissions to 0.6 of a pound of fluoride per ton of aluminum produced. That is the system which Martin Marietta acquired from Sumitomo and has installed in its operating aluminum reduction facility in The Dalles, Oregon.

5. The third and final point that Mr. Byrne makes in his November 18 letter is, again most disingenuously, that he is not aware of any other aluminum plant having offered to restrict its emissions to 0.5 of a pound of fluoride per ton of aluminum produced. That, of course, is precisely the number at which the Alumax facility obtained a permit through this Department of Environmental Quality of the State of Oregon.

6. Mr. Byrne asserts that the Hatchard statement by "innuendo" establishes that the standards can be met. There is no innuendo in Mr. Hatchard's clear avowal on the first page of his statement of November 9, 1981, that the current state of the art of controlling emissions from primary aluminum plants would permit the application of Oregon's existing standards for new aluminum plants upon the existing primary aluminum plants.

7. Although Mr. Byrne asserts that Mr. Hatchard had not addressed the three criteria -- state of the art, reduction feasibility and need -- in fact, all three of those criteria are addressed, in separate sentences, in that same first page of Mr. Hatchard's statement. Moreover, all three of the criteria again are addressed in the final paragraph of Mr. Hatchard's statement.

* * * * * * * * * * *

also required that the court impose an order upon Mr. Hatchard for confidentiality, with respect to documents obtained from the Sumitomo Aluminum Company, as the basis for the new pollution control system introduced at the aluminum reduction facility in The Dalles.

2. Mr. Byrne's November 18 letter does not address the substance of Mr. Hatchard's statement. Mr. Hatchard's position is that site specific permits should be issued to aluminum plants in Oregon, based upon their best available control technology in the particular circumstances in which the aluminum plant finds itself. The clear inference which should be drawn from that position is that the regulations should be changed by the Environmental Quality Commission, in order to require the imposition of such best available control technology upon each aluminum plant, consistent with the newly adopted plant site emission limit rules of the Environmental Quality Commission. Rather than addressing this position, however, Mr. Byrne chooses to attack peripheral points of concern. Moreover, his attack is unsound, misplaced and improper.

3. Mr. Byrne's November 18 letter addresses three points. First, he disputes whether the Martin Marietta Aluminum Company has represented that it could maintain a standard of 0.8 pounds of fluoride per ton of aluminum produced. He cites a letter of October 19, 1978, from the United States Environmental Protection Agency. He miscites that letter as dated October 19, 1981. As that letter points out (page 1, paragraph 2), the actual application for a permit from Martin Marietta Aluminum stated the company's eventual ability to obtain a restriction of its emissions to 0.4 pounds of fluoride per ton of aluminum produced. The fact is that when the representative of the Martin Marietta Aluminum Company testified, under oath, in federal court, in the Fall of 1980, he accepted that the aluminum company could maintain a standard of 0.8 pounds of fluoride per ton of aluminum produced. We will be happy to submit a copy of the transcript of the witness' testimony, should you desire a copy of that transcript. The differing time schedules between the Goldendale operation which was the subject of the permit application to the United States Environmental Protection Agency, and the operations of the reduction facility in The Dalles, Oregon, pursuant to the schedule of the Oregon Administrative Rules should be noted. The latter will not go into effect until 1986. By then the facility in Goldendale will have been required to demonstrate why there is any substantial reason that the 0.8 pound fluoride standard should not have been maintained. If the Martin Marietta Aluminum Company's prediction in its application to the United States Environmental

TOOZE KERR MARSHALL & SHENKER
ATTORNEYS AT LAW
801 STANDARD PLAZA
1100 S. W. SIXTH AVENUE
PORTLAND, OREGON 97204
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ARDEN E. SHENKER
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STEPHEN R. FRANK
WM. G. SHERIDAN, JR.
MICHAEL J. GENTRY
FARRAND M. LIVINGSTON
NEALE E. CREAMER
ELIZABETH A. TRAINOR

LAMAR TOOZE, SR.
1895-1971

December 21, 1981

Ms. Linda Zucker
Hearings Officer
Department of Environmental Quality
P. O. Box 1760
Portland, Oregon 97207

Dear Ms. Zucker:

RE: Primary Aluminum Plant Regulations
Our File No. 5886/04995

This office represents the Wasco County Fruit and Produce League, which has been closely involved in the development of monitoring of the aluminum plant facility of the Harvey Aluminum Company, now Martin Marietta Aluminum, in The Dalles, Oregon. The League has been involved in the development of the regulations with respect to primary aluminum plants, over a period of more than 20 years.

William G. Sheridan, Jr., attended the hearing on November 9, 1981, on behalf of the Wasco County Fruit and Produce League. Based upon the oral comments and written statements available at that time, it was not necessary for the League to make any formal statement of its position.

On December 18, 1981, we received a copy of the letter of Mr. Joseph L. Byrne, of November 18, 1981, on behalf of Martin Marietta Aluminum, to you, together with his statement for that company with respect to the primary aluminum plant regulations. Now it is appropriate for us to comment.

Statements made in Mr. Byrne's November 18 letter to you are outrageous. They require a response.

1. Preliminarily it should be noted that Mr. Hatchard's statement, which is the subject of Mr. Byrne's November 18 letter, was intended to be delivered by him orally at the hearing. However, he was stranded at an airport for two days, when fog conditions did not permit his arrival in Portland in time for the hearing. He is not a party to any general agreement with the Martin Marietta Aluminum Company, except, as his statement says, he is a party to a confidentiality agreement imposed upon him by the aluminum company, pursuant to its application for a court order. The Sumitomo Aluminum Company, of Japan,

3. Our contacts for Tillamook County are as follows:

Air and Water Quality

Renato C. Dulay
522 S.W. Fifth Avenue
Portland, Oregon 97204 229-5393

Solid Waste and On-site Sewage Disposal

Charles H. Gray, Regional Supervisor
522 S.W. Fifth Avenue
Portland, Oregon 97204 229-5288

John L. Smits, Environmental Analyst
P.O. Box 869
Astoria, Oregon 97103 325-8660

Douglas Marshall, Sanitarian
Tillamook County Courthouse
Tillamook, Oregon 97141 842-5511

Tillamook County Health Department has primary responsibility for on-site sewage disposal and operates under a contract with the Department.

The NWR manager is Tom Bispham, 229-5292, 522 S.W. Fifth Avenue, Portland, Oregon.

If you have any questions regarding the above or if I can be of further assistance, please feel free to contact me.

Sincerely,

Fred M. Bolton
Administrator
Regional Operations Division

FMB/emc
cc: William H. Young
Northwest Region, DEQ

CC:WNQ

Department of Environmental Quality

VICTOR ATIYEH
GOVERNOR

522 S.W. 5th AVENUE, BOX 1760, PORTLAND, OREGON 97207

April 15, 1982

Douglas R. Carter
Department of Economic Development
155 Cottage Street N.E.
Salem, Oregon 97310

Dear Mr. Carter:

The following is this Agency's response to your memo dated April 6, 1982, requesting a summary report of our activities in Tillamook County and our abilities to assist in the Emergency Economic Assistance process.

1. The Department's Northwest Region office (NWR) in Portland and branch office in Astoria currently have primary responsibility for administering air, water and solid waste programs in Tillamook County. Sources of air and water pollution and solid waste disposal sites are regulated through a permit system. Currently NWR staff are involved with the sources from the notice of initial construction through permit issuance and subsequent inspection. Presently under permit in Tillamook County are:

    27 water sources
    36 air sources
    2 municipal solid waste transfer stations
    1 municipal solid waste disposal site
    3 industrial solid waste disposal sites

    The most significant sources we presently deal with in Tillamook County are:

    City of Tillamook - sewage treatment plant
    Tillamook County Creamery - dairy products processing and sewage treatment plant

2. Perhaps the most benefit our staff can provide is technical assistance and advice in the planning stages of a new pollutant source. Up-front assistance can prevent any misunderstandings of our responsibilities and processes. Multi-permit processes can often proceed coincidentally to avoid delays caused by interagency requirements. We find our involvement on Technical Advisory Committees often beneficial.

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of the Amendment to Rule OAR 340-71-335, On-Site Sewage Disposal, Cesspools	)))	Notice of Public Hearing to Consider Amendment to Rules Governing Installation of Cesspools

1. A public hearing will be held before the Environmental Quality Commission, on April 16, 1982, at 10 a.m., in Conference Room 1400, 522 S.W. Fifth Ave., Portland, to consider amendments to Administrative Rules governing installation of cesspools, OAR 340-71-335.

2. The issue under consideration at the hearing is extension of the date beyond which installation of cesspools to serve new construction is prohibited. The date contained in the rules, (October 1, 1981), has been extended by temporary rule. The temporary rule extending the date expires on April 16, 1982.

3. Interested persons may present testimony orally or in writing at the hearing, or in writing to the Department of Environmental Quality, Attention Jack Osborne, P.O. Box 1760, Portland, Oregon 97207, to be received not later than April 15, 1982.

4. The proposed rule amendments have been identified as not affecting land use.

5. Citation of Statutory Authority, Statement of Need, Principal Documents Relied Upon and Statement of Fiscal Impacts, are filed with the Secretary of State.

6. The public hearing will be conducted by the Environmental Quality Commission as a part of its regularly scheduled meeting for that date. At the hearing, the Commission may choose to adopt the rule amendments as proposed, modify the proposal, or choose not to act.

William H. Young, Director
Department of Environmental Quality

April 1, 1982
XL1473

Written testimony -
AGENDA ITEM M

Tillamook County Environmental Health

201 Laurel Avenue
Tillamook, Oregon 97141
842-5511 • Ext. 354

March 23, 1982

Jack Osborne
P.O. Box 1760
Portland, OR 97207

Re: Proposed Amendment of OAR
340-71-335

Dear Mr. Osborne:

This office wishes to go on record opposing any extension of the cesspool expiration date. One extension by temporary rule is sufficient. The contamination of the underlying gravels and groundwater in the area has gone on for too long.

It is inconsistent policy to allow cesspool contamination in Multonomah County when a statewide Environmental Quality Commission Groundwater Protection Policy exists. I find it difficult to explain when I am denying the use of a small beach lot, because the disposal system will pollute the ground water and the lot owner lives in the West Hills of Portland and his newly constructed cesspool does the same thing.

Respectfully,

Douglas Marshall, R.S.
Senior Sanitarian

cc: Environmental Quality Commission Secretary

Written testimony -
AGENDA ITEM M

REALTOR®

OREGON ASSOCIATION OF REALTORS®

Executive Offices:
694 Church St. N.E.
P.O. Box 351, Salem, Oregon 97308
Telephone (503) 362-3645
1-800-452-9115

April 8, 1982

Department of Environmental Quality
Attention Jack Osborne
P. O. Box 1760
Portland, OR 97207

Gentlmen

We are writing concerning the Amendment to Rule OAR 340-71-335, On-Site Sewage Disposal, Cesspools.

We urge that all alternative methods of sewage disposal, including cesspools, be retained to provide maximum flexability for property useage. Once prohibited an alternative is then lost to your technical staff which may prove to be the most practical and reasonable method of sewage disposal in some isolated circumstance. We ask that all alternatives be made permanently available but only upon approval by experts in the field.

Thank you for your consideration.

OREGON ASSOCIATION OF REALTORS

Bill Lillebo

Bill Lillebo, Chairman
Environment and Energy Sub-committee

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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APR 15 1982
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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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WATER QUALITY CONTROL

Agenda Item L May Young EQC Reiter

VICTOR ATIYEH
GOVERNOR

State of Oregon Aeronautics Division

3040 25th STREET S.E., SALEM, OREGON 97310 PHONE 378-4880

April 14, 1982

Bill Young, Director
Dept. of Environmental Quality
522 S.W. Fifth St.
Portland, OR 97204

Proposed Amendments to Hazardous
Waste Management Rule (OAR 340-63-125)

This will confirm our recent discussion on this matter and provide information on agenda item L for the Environmental Quality Commission in their consideration of that issue during their meeting on April 16, 1982.

I plan to be present at that meeting, and will be pleased to take part in further discussion if called upon.

In a work session last week in my office with Rich Reiter and Mike Ebeling of your staff, we thoroughly discussed the current approach of asking the Commission to adopt the Design Performance Standards as part of the rule and incorporate the supplemental application information as an attachment to the application form.

We recommend that the Department establish a small Task Force or Steering Committee to act in an advisory capacity during at least the early phases of implementation of the Rule. This group should be made up of representatives of the major organizations and government agencies directly affected or involved in the implementation process.

I have discussed our current thinking and posture on this matter with the President and some members of the Oregon Agricultural Aviation Applicators Association and feel that they can accept the present approach. I have also assured them that if some feature of the new rule proves to be unworkable or impractical, our agency will fully support a petition or request to the Commission for appropriate modification of the rule.

In light of the foregoing, we hereby withdraw our previous request for a six month delay in adoption of the subject amendment with the understanding that further study and facility design development will take place during the early phases of implementation.

We look forward to working with you and your staff.

Sincerely,

Paul E. Burket

PAUL E. BURKET
Aeronautics Administrator

cc: Tony Yturri
Fred Miller

PEB:cs

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

Part C - Bond Maturity Schedule

AGENCY NAME: Yamhill County Revenue Bonds

PRINCIPAL AMOUNT: $475,000.00

YEAR ENDING Aug 1	INTEREST RATE	DUE Feb 1 INTEREST	Due August 1 INTEREST	Due August 1 PRINCIPAL	Due August 1 TOTAL	TOTAL ANNUAL REQUIREMENT
1982	5.9	-0-	17,675.00	-0-	17,675.00	17,675.00
1983	6.4	17,675.00	17,675.00	5,000	22,675.00	40,350.00
1984	6.6	17,515.00	17,515.00	5,000	22,515.00	40,030.00
1985	6.5	17,350.00	17,350.00	10,000	27,350.00	44,700.00
1986	6.8	17,025.00	17,025.00	15,000	32,025.00	49,050.00
1987	7.2	16,515.00	16,515.00	15,000	31,515.00	48,030.00
1988	7.4	15,975.00	15,975.00	15,000	30,975.00	46,950.00
1989	7.2	15,420.00	15,420.00	20,000	35,420.00	50,840.00
1990	6.6	14,700.00	14,700.00	20,000	34,700.00	49,400.00
1991	6.6	14,040.00	14,040.00	20,000	34,040.00	48,080.00
1992	6.8	13,380.00	13,380.00	25,000	38,380.00	51,760.00
1993	7.2	12,530.00	12,530.00	25,000	37,530.00	50,060.00
1994	7.3	11,630.00	11,630.00	30,000	41,630.00	53,260.00
1995	7.5	10,535.00	10,535.00	30,000	40,535.00	51,070.00
1996	7.7	9,410.00	9,410.00	35,000	44,410.00	53,820.00
1997	7.7	8,062.50	8,062.50	35,000	43,062.50	51,125.00
1998	7.9	6,715.00	6,715.00	40,000	46,715.00	53,430.00
1999	7.9	5,135.00	5,135.00	40,000	45,135.00	50,270.00
2000	7.9	3,555.00	3,555.00	45,000	48,555.00	52,110.00
2001	7.9	1,777.50	1,777.50	45,000	46,777.50	48,555.00
2002	5.2					
		228,945.00	246,620.00	475,000	721,620.00	950,565.00

On behalf of Yamhill County, I, the undersigned, being duly authorized to take such action as evidenced by documents submitted to the Department of Environmental Quality do hereby agree to have Yamhill County pay from the Revenues the foregoing amounts upon the dates and times and in the manner established.

Signature of Representative

Date

Name and Title of Representative

Approved for Riverbend Landfill Co. Inc.

Signature of Representative

Name and Title of Representative

BK249.B1 (2)

ESTIMATED NET OPERATING REVENUE

(Riverbend Landfill Company, Inc.)

	1982	1983	1984	1985	1986
Revenue:	$ 337,928	$ 336,992	$ 344,351	$ 378,763	$ 391,501
Expenditure:	263,932	267,911	281,901	298,286	317,592
Net Operating Revenue:	$ 73,996	$ 69,081	$ 62,450	$ 80,477	$ 73,909
Debt Service Interest:	17,675	35,350	35,030	34,700	34,050
Income Before Taxes:	$ 56,321	$ 33,731	$ 27,420	$ 45,777	$ 39,859
Debt Service:	$ 17,675	$ 40,350	$ 40,030	$ 44,700	$ 49,050
Net Operating Revenue/ Debt Service Ratio:	4.2X	1.71X	1.56X	1.80X	1.51X

For Riverbend Landfill Co. Inc.

Signature of Representative

Name and Title

Date

For Yamhill County

Signature of Representative

Name and Title

Date

FWO'D:k
BK742.1

8. Funds Available for Construction of the Total Project	Amount
A. Cash (including net receipts from bonds sold)	$ _____
B. General Obligation Bonds (unsold)	$ _____
C. Revenue Bonds or Certificates (unsold) - DEQ	$ 475,000
D. Other (specify) Contributed Assets	$ 100,000
E. State Grant	$ _____
F. Federal Aid (specify)	$ _____
G. Total	$ 575,000

The undersigned representative of the public agency certifies that the information contained above and in any attached statements and materials in support thereof is true and correct to his best knowledge.

_____ _____

Signature of Authorized Representative Date

_____

Name and Title of Representative

Approved for Riverbend Landfill Co. Inc.

_____ _____

Signature of Representative Name and Title of Representative

B. The opinion should also include information as to whether or not: (1) The public agency (or the present owner if fee simple title has not been or is not to be acquired) has good and valid title to the entire site (excluding easements and rights-of-way) free and clear of any preexisting mortgages, deeds or trust, liens, or other encumbrances which would affect the value of usefulness of the site for the purpose intended; and (2) Any deeds or documents required in order to protect the title of the owner and the interest of the public agency have been duly recorded or filed for record wherever necessary.

6. Project Cost Estimate Summary

A.	Site Development		$135,440
B.	Equipment		
	1 INT. TD 25c Bulldozer	$75,000	
	1 INT. 180 Payhauler	76,191	
	Reconditioning 1 backhoe	10,000	$161.191
C.	Technical services		38,727
D.	Legal, fiscal expense		25,996
E.	Recycling facilities		50,000
F.	Contingency		13,646
			$425,000
	Debt Service Reserve Fund		50,000
	Total Eligible Project Cost		$475,000
	Other Equipment and Contributed Costs		100,000
	Total Estimated Project Cost		$575,000

7. Attach the following information:

A. A detailed breakdown supporting the project cost summary

B. Tabulation of all bids received

C. Copies of the bid or bids the applicant wishes to accept

D. Evidence of advertising

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

PART B - SUPPLEMENTAL PROJECT INFORMATION

Note: The contract shall not be awarded until Part B and attachments have been approved by the Department.

---

1. Location of Project (State, County, City) Project Number

   Oregon
   Yamhill

2. Legal Name and Address of Public Agency

   Yamhill County
   Yamhill County Courthouse
   McMinnville, OR 97128

3. Summary of Major Changes (if any) in the Project Since Offer Accepted

4. Have there been any changes in the final plans and specifications since date of approval by the Department?

   Date of Approval _____

   Yes _____ No _____

   Date of Change _____

   If "Yes'" have these changes been approved by the Department?

   Yes _____ No _____

   Date Approved _____

5. Site Data

   A. If not previously submitted: (1) Attach a legal description of the site on which project is to be constructed; and (2) Attach an opinion signed by either the public agency's attorney or a title insurance company, qualified to do business in Oregon, describing the interest the public agency has in the site, including information as to any easements and rights-of-way, and certifying that the estate or interest is legal and valid.

PART A - SECTION III - ACCEPTANCE

On behalf of _____ I, the undersigned, being duly authorized to take such action as evidenced by the attached certified copy of authorization by the Public Agency's governing body do hereby accept this offer and make the assurances and covenants contained herein.

_____ _____

Signature of Representative Date

_____

Name and Title of Representative

Approved for Riverbend Landfill Co. Inc.

_____ _____

Signature of Representative Name and Title of Representative

2. To cause the Company to agree:

   (i) To limit the scope of its business to operation of the Facilities unless the prior written consent of the Department is obtained.

   (ii) Not to merge or consolidate with any other company or entity without obtaining the prior written consent of the Department.

   (iii) Not to dispose of any part of the Project other than for normal replacement purposes without obtaining the prior written consent of the Department.

   (iv) To prepare and send to the Public Agency and to the Department each year a financial study of the rate structure of the Facilities and request such rate increases as may be necessary to ensure that Net Operating Revenue will be at least 1.3 times Debt Service requirements.

   (v) To indemnify and reimburse the Department for any payments made or losses suffered by the Department on behalf of the Company as a result of its negligence, omissions or breach of any covenant or condition of this agreement.

   (vi) To comply with applicable state laws and the rules and regulations of the Department and continually operate and maintain the facility in good condition upon completion of construction.

3. The Department shall have at all times the right to inspect any contracts or other documents executed by the Public Agency or the Company in connection with the operation, maintenance, extension or improvement of the Project.

4. The Public Agency will not modify or cause to be modified or amended its Ordinances relating to solid waste collection and disposal which would materially and adversely affect the ability of the Company to charge fees sufficient to cover principal and interest on the Revenue Bonds as and when they become payable, without obtaining the prior written consent of the Department.

5. To submit copies of or references to all charters, ordinances or resolutions regarding the Public Agency's authority to contract, issue bonds and perform all functions and duties necessary and incidental to this advancement of funds that may be required by the Department.

6. The provisions herein may be provided for in more specific detail in any resolutions or ordinances necessary to implement this agreement.

B. Construction Provisions

The Public Agency will cause the Company to ensure:

1. That any change or changes in the contract which make any major alteration in the work required by the plans and specifications or which raise the cost of the Project above the latest estimate approved by the Department will be submitted to the Department for prior approval.

2. That competent engineering supervision and inspection at the facility will be provided and maintained to insure that the construction conforms with the approved plans and specifications.

3. That upon completion of construction of the Project, a statement of the actual costs of the Project will be prepared and certified by an auditor approved by the Department.

C. Operational Provisions

1. The Public Agency will cause the Company to maintain complete books and records relating to the operation of the Facilities and its financial affairs and will cause such books and records to be audited annually by an auditor approved by the Department at the end of each fiscal year and an audit report prepared, and will furnish the Department with a copy of each annual audit report. At all times, the Department shall have the right to inspect the Facilities and the records, accounts and data of the Company relating thereto. The Department, at the discretion of the Director, shall have the right to obtain an independent expert review of the Company's financial and audit data at the Company's expense.

2. It will cause the Company to maintain such insurance coverage, performance or fidelity bonds in such amounts and in such form as may reasonably be required by the Department for the term of this agreement.

D. Continuing Provisions

The Public Agency agrees:

1. To not cause or permit any voluntary dissolution of itself, merge or consolidate with another Public Agency, dispose of or transfer its interest to the Project, or any part thereof, other than for normal replacement purposes, including lands and interest in lands by sale, mortgage, lease or other encumbrance without obtaining the prior written consent of the Department.

   This section shall not be deemed to prevent mergers or consolidations initiated or commenced as the result of proceedings authorized by the Legislative Assembly of Oregon.

13. The Public Agency agrees to repay and retire from the Revenues all bonded indebtedness to the Department as rapidly as the State of Oregon is required to repay and retire its bonded indebtedness for pollution control bonds sold at public sale. Such payments shall be made, upon a repayment schedule prepared by the Department, at least 30 days prior to the dates required for state installment payments upon its bonded indebtedness. The Public Agency may accelerate its repayments to the Department without penalty. The required schedule of principal and interest payments on the Revenue Bonds is contained in Part C of this Agreement.

14. The Public Agency agrees to prepare and offer its bonds for sale to the Department at par to an even multiple of $5,000 in an amount not to exceed the total eligible Project Cost as determined by the Department.

The Public Agency agrees to issue a single bond in lieu of serial bonds at the option of the Department if otherwise authorized by law.

15. The Department shall have the following remedies upon default in the payment of principal or interest on the Revenue Bonds when due or in the performance of any conditions, covenant, assurance or agreement contained in the Revenue Bonds, the Indenture, Loan and Security Agreement or this Bond Purchase Agreement or in the instruments incidental thereto:

(i) All remedies specified in the Indenture;

(ii) All remedies as assignee of the Public Agency specified in the Loan and Security Agreement.

(iii) Specifically, the Indenture and the Loan and Security Agreement shall provide, together with any other remedies therein provided, that upon any default in the payment of the principal of and interest on any of the Bonds when due or upon any other default after the giving of any notice required by the Indenture or the Loan and Security Agreement, the principal of any outstanding Bonds shall be declared immediately due and payable, with accrued interest, unless the Department has specifically instructed the Trustee, in writing, to the contrary.

(iv) The remedies provided in the Loan and Security Agreement and in the Indenture shall include, but shall not be limited to, the right of the Public Agency and its assignees to take possession of the Project and lease or operate it and to prevent the disbursement of additional Construction Fund monies.

This section shall not be deemed to prevent the Public Agency or the Trustee from investing the proceeds of the Revenue Bonds in securities authorized by the Company if the income resulting from such investments is credited to the Construction Fund; and provided further that such investment shall not violate Section 103 of the Federal Internal Revenue Code and regulations adopted thereunder.

7. The Trustee shall cause the establishment of an Equipment Replacement Reserve Fund under the Indenture and Loan and Security Agreement. This Fund shall be used only for payment of the costs of replacing items of equipment included in Part B of this agreement. The Company shall pay to the Trustee for deposit in the Equipment Replacement Reserve Fund no later than thirty days after the close of its financial year such amount as is at least equal to the annual amount of depreciation calculated on a straight-line basis as will amortize the cost of the equipment shown in Part B of this agreement over the estimated useful life of that equipment.

8. The Public Agency agrees to assign all its interests in the Loan and Security Agreement, including the security interest in the Project to the Trustee under the Indenture for the benefit of the holders of the Revenue Bonds. The Public Agency also agrees to grant a security interest in the funds created by the Indenture to the Trustee for the benefit of the holders of the Revenue Bonds.

9. The Public Agency agrees to provide all necessary legal opinions on the Revenue Bonds regarding their legality, tax exempt status and as otherwise required to insure their marketability from competent bond counsel at no expense to the the Department; and to comply with all instructions pertaining to bond preparation and issuance as may be required by bond counsel or the Department's Administrative Rules.

10. The Public Agency agrees to have prepared on its behalf and to adopt ordinances or resolutions deemed necessary by the Department providing for the issuance of its bonds, or entering into of contracts, and containing such terms and in such form as are required by state statutes or regulations of the Department.

11. The Public Agency agrees to provide for a public sale after due advertisement of such bonds in a manner acceptable to the Department.

12. The Public Agency agrees that in the event that the Public Agency or the Company receives Federal Grant funds applicable to all or any portion of the Project, such Federal funds will be applied to prepay outstanding Revenue Bonds.

(b) Net Operating Revenue of the Company shown by its duly audited financial statements for the two years immediately preceding the year in which the Parity Revenue Bonds are proposed to be issued, is at least equal to 1.3 times the Debt Service for those years.

(c) The Public Agency and the Company demonstrate to the satisfaction of the Department that the Company's Net Operating Revenue in each fiscal year thereafter will reasonably be expected to at least equal 1.3 times the sum of the average annual Debt Service of the Revenue Bonds plus the annual debt service similarly calculated for the additional loans to be derived from the proceeds of the Parity Revenue Bonds proposed to be issued.

4. The Public Agency shall cause the Trustee under the Indenture to apply the proceeds of the Revenue Bonds in the following order:

(a) Into the Bond Fund the interest accrued on the Revenue Bonds, if any, between the date of the Revenue Bonds and the date of delivery of the Bonds to the Department, such interest to be applied to the first payment of interest to become due and payable on the Revenue Bonds, and

(b) Into the Debt Service Reserve Fund the amount of $50,000, and

(c) Into the Construction Fund the balance of the proceeds.

5. The balance of the Debt Service Reserve Fund shall be maintained at all times, other than as provided herein, at a level of $50,000. The Debt Service Reserve Fund may be applied towards the last payments of principal and interest becoming due on the Revenue Bonds. When there are no longer any Revenue Bonds outstanding and the last interest payment has been made, any remaining balance in the Debt Service Reserve Fund shall be paid to the Company. If the Trustee under the Indenture utilizes amounts in the Debt Service Reserve Fund to make any required payment of principal or interest coming due on the Revenue Bonds, the Trustee shall immediately require the Company to make such monthly payments as are necessary to bring the Debt Service Reserve Fund back to a level of $50,000 before the next due date for the payment of principal or interest on the Revenue Bonds.

6. The Construction Fund shall be used only for payment of the Costs of the Project. In the event that not all the monies in the Construction Fund are expended on the Project, the Trustee will send a written report to the Department setting out the physical and financial status of the Project and take all necessary actions to use the remaining funds to prepay outstanding Revenue Bonds.

Now therefore, in consideration of the premises and of the mutual covenants and undertakings of the Public Agency hereinafter set forth in this Section II:

I. The Department agrees to purchase from the Public Agency, by placing a bid at the advertised sale held by the Public Agency, the Revenue Bonds lawfully issued by said Public Agency in an amount determined by the Department.

II. The Public Agency agrees to the following covenants and provisions:

A. Financing Provisions

1. The principal and interest on the Revenue Bonds shall not constitute nor give rise to a pecuniary liability of the Public Agency or a charge against its general credit or taxing powers. The Revenue Bonds shall only be limited special obligations of the Public Agency, payable solely from and secured by an irrevocable first lien on and pledge of (i) the Revenues and (ii) either the proceeds of Bond Insurance or draws against letters of credit if any proceeds there be, subject only to the reasonable fees, charges and expenses of the Trustee under the provisions of the Indenture.

2. The Public Agency shall establish and fix such tipping and other user rates and fees chargeable by the Company for the use of the Facilities as will provide annual Net Operating Revenue of the Company equal in any year to at least 1.3 times the Debt Service for such year.

This section shall not be deemed a restriction upon the Public Agency to fulfill its legislative authority and responsibility to its electorate and citizens in governing its local affairs. The purpose of this section is to insure that the Public Agency continues to permit sufficient rates for the payment of bonded indebtedness and operating and maintenance costs.

3. The Public Agency hereafter and until the Revenue Bonds are fully paid, shall only issue Parity Revenue Bonds if the following conditions have been met, as acknowledged in writing by the Department:

(a) The Public Agency or the Company is not in default as to any covenant, condition or obligation contained in the Revenue Bonds or herein; and

"Parity Revenue Bonds" means additional revenue bonds to be issued by the Public Agency for the purpose of financing the Facilities and which are payable equally and rateably on a parity with the Revenue Bonds.

Whereas, the Public Agency desires to raise a portion of the cost of the Project by issuance of its Revenue Bonds, and the Department intends to assist the Public Agency in such undertaking by purchasing the Revenue Bonds lawfully issued by it, as authorized by Article XI-H of the constitution of Oregon and its implementing acts;

Now therefore, in consideration of the foregoing and of the mutual covenants and undertaking hereinafter set forth, the Department offers:

To purchase from the Public Agency, Revenue Bonds lawfully issued by it for the aforesaid purposes, in an amount not exceeding the lesser of $ 475,000 or 100 percent of the eligible Project Costs as determined by the Department.

This offer is subject to the assurances, undertaking and covenants included in this document as Part A Section II, and subject to the completion of Parts A, B and C of this offer and acceptance and the following conditions:

1. Execution of the Loan and Security Agreement and the Indenture in a form consistent with this agreement and acceptable to the Department.

2. Either: (a) Bond Insurance by a company acceptable to the Department, or (b) Execution of an irrevocable letter of credit by a bank approved by the Department securing for the period during which any Revenue Bonds may be outstanding the amount of the principal of and any interest due on such outstanding Revenue Bonds.

3. Execution by Ezra Koch, Fred Koch, the Company, McMinnville City Sanitary Service, Inc., and Sani-Lease of irrevocable Guaranty Agreements in forms approved by the Department securing all obligations of the Company under the Loan and Security Agreement and payment of principal and interest on the Revenue Bonds.

4. Demonstration to the satisfaction of the Department that the Company has and will continue to have as long as any Revenue Bonds are outstanding all necessary leasehold interest in the property described in _____.

5. Subordination to the lien of the Indenture by the Company of its leasehold interest in the lease agreement between Marvin Bernards as lessor and the Company as lessee dated _____.

This offer must be accepted, if at all, on or before May 31, 1982 .

FOR THE STATE OF OREGON, DEPARTMENT OF ENVIRONMENTAL QUALITY

_____ _____

Director Date

equipment to be acquired and constructed by the Company and located within the County of Yamhill, Oregon, and as described in Part B of this agreement.

"Revenue Bonds" means the County of Yamhill, Oregon Pollution Control Revenue Bonds, 1982 Series A (Riverbend Landfill Co. Inc. Project) in the aggregate principal amount of $475,000.

"Loan and Security Agreement" means the Loan and Security Agreement dated as of _____ 1982 between the Public Agency and the Company.

"Indenture" means the Indenture dated as of _____ 1982 between the Public Agency and _____ as Trustee.

"Trustee" means the trustee appointed under the Indenture.

"Net Operating Revenue" means the income before taxes of the Company derived from its operation of the Facilities, such income being determined in accordance with Generally Accepted Accounting Principles, except for the exclusion of any charges for Debt Service.

"Debt Service" means principal and interest payments in respect of the loans from the Public Agency which are the subject of the Loan and Security Agreement.

"Facilities" means the Project and all additions thereto.

"Revenues" means all rents, receipts, payments of loan principal and interest and other income derived by the Public Agency from the sale or lease or other financing of the Facilities and any income or revenue derived from the investment of any money in any fund or account established pursuant to the Indenture including all loan payments made by the Company pursuant to the Loan and Security Agreement and any amounts obtained from enforcement of any security interest in the Facilities.

"Bond Fund" means the 1982 Series A Riverbend Landfill Co. Inc., Bond Fund established pursuant to the Indenture.

"Debt Service Reserve Fund" means the 1982 Series A Riverbend Landfill Co. Inc. Debt Service Reserve Fund established pursuant to the Indenture.

"Construction Fund" means the 1982 Series A, Riverbend Landfill Co. Inc. Construction Fund established pursuant to the Indenture.

"Equipment Replacement Reserve Fund" means the 1982 Series A Riverbend Landfill Co. Inc. Equipment Replacement Reserve Fund established pursuant to the Indenture.

"Costs of the Project" means costs of the Project as defined in Loan and Security Agreement.

"Bond Insurance" means insurance covering the principal repayments and interest when due on all outstanding Revenue Bonds.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

OFFER AND ACCEPTANCE - BOND PURCHASE AGREEMENT

PART A - SECTION I - OFFER

1. Location of Project (State, County, City) — Project Number

Oregon
Yamhill

2. Legal Name and Address of Public Agency (Applicant)

Yamhill County
Yamhill County Courthouse
McMinnville, OR 97128

3. Project Financing under Terms of this Offer

Total Estimated Project Cost	$ 525,000
Debt Service Reserve Fund Requirement	50,000
Total Eligible Cost	$ 575,000
Estimated Bond Principal (Revenue Bonds)	$ 475,000

4. Description of Project

Landfill development and related facilities and equipment

Yamhill County, hereinafter referred to as the "Public Agency," has applied to the State of Oregon, acting by and through the Department of Environmental Quality, hereinafter referred to as the "Department," for funds for the purpose of landfill development and related facilities for the disposal of solid wastes and to serve an area lawfully within its jurisdiction to serve.

Unless the context otherwise requires, the terms defined in this section shall for all purposes of this agreement have the meanings herein specified.

DEFINITIONS

"Company" means Riverbend Landfill Co. Inc., an Oregon corporation.
"Project" means the landfill development and related facilities and

Alternatively, the operator requests that upon expiration of the initial guarantee after 5 years, it need not be renewed.

(b) Legal advisors to the County have expressed reservations about the County's ability to agree to such a covenant; their objections will be formulated and reviewed by the Attorney General's office prior to the EQC meeting.

The other major alternative is for the Commission to deny the request.

Summation

1. Yamhill County has requested the Department to purchase $475,000 of Pollution Control Revenue Bonds to finance construction of a new sanitary landfill.

2. Based on the provisions of the attached draft Bond Purchase Agreement, the arrangement appears sound and the interest of the State as bondholder would be adequately protected.

Director's Recommendation

Based upon the summation, it is the Director's recommendation that the Commission concur in the purchase of Yamhill County Pollution Control Revenue Bonds 1982 Series A in the amount of $475,000.

Michael Downs
for
William H. Young
Director

Attachments: 1. Bond Purchase Agreement
BH321
Fergus W. O'Donnell:h
(503) 229-6270
April 1, 1982

2. Assignment of the rights of the County to the trustee for the benefit of the bondholder.

3. Security interest in the equipment.

4. Subordination of the lease of the landfill property to enable the Department to operate it or find another operator if need be.

5. Bond Insurance or an irrevocable letter of credit from a bank covering all outstanding bonds (see Note (a) below).

6. Irrevocable guarantee agreements by the principal shareholders of the landfill company and the associated collection company. Such guarantees would effectively multiply the asset and earnings cover of the debt several times.

7. Establishment out of the proceeds of the bond issue of a debt service reserve of $50,000, approximately the maximum annual debt service.

8. Requirement for an Equipment Replacement Reserve Fund to be built up with the trustee by annual payments equal to the depreciation on the equipment.

9. Requirement for the landfill company to prepare annual rate studies and request such rate increases as may be necessary to ensure that Net Operating Revenue will be at least 1.3 times Debt Service.

10. Requirement for the County to establish such tipping rates as will provide Net Operating Revenue of the landfill company equal in any year to 1.3 times debt service for such year. (see Note (b) below).

11. Agreement by the County not to change its ordinances concerning solid waste collection and disposal without the Department's consent.

12. Requirement to keep proper accounts and have them audited annually by an auditor approved by the Department; rights to further independent financial reviews.

13. Limitation on the rights to issue additional Parity Bonds unless the 1.3 times debt service coverage has been and will continue to be achieved.

NOTE: (a) With regard to Item 5 above, the landfill operator requests that if Bond Insurance cannot be obtained, the Commission waive the requirement for a bank guarantee as being unnecessary and costly. The cost of the guarantee is 1.5% which, added to the rate on the Department loan, gives a total annual interest cost of 9.1%. The additional cost averages approximately $5,000 a year over the life of the project.

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: Director

Subject: Agenda Item No. R , April 16, 1982, EQC Meeting

Request for Concurrence: Purchase of Yamhill County Revenue Bonds for Construction of Sanitary Landfill

Background

At the October 9, 1981 EQC meeting, the Department requested concurrence in the purchase of $475,000 of Pollution Control Revenue Bonds to be issued by Yamhill County. The EQC, concerned with the security aspects of revenue bonds, instructed the Department to negotiate the details of the arrangement subject to Commission approval.

Since then the Staff have worked with the landfill operator and his financial consultant and bond counsel to investigate and structure a form of bond purchase agreement which will provide a high level of security for a transaction of this type (see Attachment 1).

Evaluation and Alternatives

The essence of the transaction is that the County sells its revenue bonds, loans the proceeds to the landfill company and is no longer really responsible for repayment of those bonds: the Department as bondholder needs to look to the landfill company and assess the risk accordingly.

Audited financial statements for 1979 and 1980 show the landfill company to have a net worth of $131,000 and annual net income of $7,000 to $8,000. A recently authorized rate increase of approximately 47% is, however, projected to increase revenues and income substantially as shown in the attached schedules and provide better than the 1.3 times coverage of debt service required by the Department. Despite such projection and recognizing the potential conflict between the County and the operator on future tipping rates, the Department feels it appropriate to look beyond the landfill company for guarantees and has incorporated the following important features in the bond purchase and related agreements:

1. Appointment of an independent trustee to handle debt service payments and generally look after the rights of the bondholders under the indenture.

when and if a particular borrower confronts severe cash flow and financial distress, able to meet either principal and interest payments or normal operating expenditures, a gross revenue pledge would assure that the remaining monies will be assigned to the payment of principal and interest. In general, however, this pledge is discounted by most knowledgeable observers of credit matters in the revenue bond market. In extremis, these observers contend, remaining monies will find their way into operating expenditures, for without the capacity to meet the costs of operations, the system ceases to function, eliminating economic and financial viability and preventing needed public services. In fact, when viewed from a historical perspective, there are numerous examples of direct and indirect circumvention of gross revenue pledges by borrowers confronting the difficult choice of meeting operating expenses or debt service. As a result, the use of a net revenue pledge now enjoys considerably greater credibility as a tool for securing revenue debt obligations. It is generally felt that if sufficient earnings are required, in recognition of a realistic earnings potential for the system, for both operating and debt service expenditures and similar costs, pursuant to covenants contained in the debt authorizing documents, the revenue securities are, practically speaking, better secured than with a pledge of gross revenues.

I appreciate the opportunity to submit these comments to you so that the Department may implement a stable financing program as a lender for sewer revenue securities. I would suggest that existing bond purchase agreements between local participants and the Department could be improved for future financing of pollution control purposes by amending them to incorporate the above provisions.

If further assistance would be helpful, please let us know.

Best regards.

Sincerely,

J. Chester Johnson

JCJ:gkb

The long-term impact of the provision of the bond purchase agreement which gives the Department an opportunity to insist on corrective action "If the Department deems itself insecure" could seriously inhibit the borrowers in the State program from raising capital in the normal course of financing in the future. At a minimum, this provision would increase the borrowing costs for such local participants in the program. In this respect, it is important to recognize that any commitments the local participants make to the Department will affect the acceptance of future bond issues sold by such participants in the public or private credit markets. The use of "non-objective" criteria could place future investors in the local participants' sewer revenue bonds in an especially vulnerable position since the Department may, in effect, at its own discretion, take any legally permissible action to cure the reason the Department deems itself insecure. This capacity provides the Department broad latitude, which if exercised, could work to the apparent disadvantage of future lenders, which would not enjoy this priority. Indeed, certain actions can be envisioned (i.e., seizing of revenues) which would clearly work to the direct detriment of future lenders. Undoubtedly, this open-ended provision could create circumstances that would make future local pollution control projects unfeasible or highly expensive.

II. Supplementary and Extraordinary Audit

On a related matter, the ability, as outlined in the bond purchase agreement, of the Department to conduct outside audits, at its own discretion, creates the impression that the integrity of audits of local sewer operations is suspect. This apparent perception by the investment community will undoubtedly work to the detriment of future sewer revenue bond sales by local participants. Moreover, this authority allows the Department to take a rather unusual action without regard to the financial and other results of the participants' regular audits. A more favorable approach to achieve the intended purposes of the Department would provide for the Department to receive certain information annually from the regular financial audits, over and above, that which is typically included in such financial audits of sewer enterprise systems. In addition, the Department may obtain a supplementary audit at any time the annual financial operations, as determined by the particular audit, have deteriorated to a certain level, which the Department will have established previously for all participants in the program. The Department may also have the right to approve the credentials for outside auditing firms that conduct the annual financial audits for local participants.

III. The Utility of A Gross Revenue Pledge

A large number of issuers of sewer revenue bonds have adopted a gross revenue pledge for securing long-term debt obligations. The argument for the use of such a pledge rests on the proposition that

Government Finance Associates, Inc.

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(609) 452-1575

February 4, 1982

Mr. Fergus W. O'Donnell
Business Manager
Department of Environmental Quality
State of Oregon
522 SW 5th Avenue
Portland, OR 97207

Dear Fergus:

You have requested certain information from this firm regarding the conditions under which the Department of Environmental Quality of the State of Oregon (the "Department") will participate in a sewer revenue bond program for benefit of political subdivisions in the State in the implementation of local pollution control projects. Based upon my understanding of your needs, it is expected that this information will be employed for the purpose of adequately securing the loans which you will provide for such projects. Thus, in response to this request, I have enclosed the attached material which sets forth the key items which would receive significant attention by lenders or investors, whose role is not dissimilar from the one you anticipate for the State in this program, in an examination of the credit worthiness of sewer revenue securities. The enclosed material, which reviews the important credit factors affecting revenue securities, including sewer bonds, has been excerpted from The Appraisal of Municipal Credit Risk, published in 1979 by Moody's Investors Service, Inc., the nationally recognized credit rating agency. Obviously, we would be pleased to respond to any questions that may arise from your review of the attached document.

In addition, however, three aspects have been identified as particularly important for your purposes, and the remaining contents of this letter is devoted to each of these three items: the impact of "non-objective" criteria (i.e., language contained in a recent bond purchase agreement--"If the Department deems itself insecure") on both the State's position as lender and the borrower's ability to provide capital funds at attractive rates for local pollution control projects in the future; the value of the authority for the Department, at its own discretion, to obtain an independent review of the locality's financial and audit data, which would be in addition to the locality's regular audit; and the advisability or requirement for the State to receive a gross revenue pledge from borrowers in the program.

I. "Non-Objective" Criteria For The Securing of Debt Obligations

In our opinion, this area represents the most significant issue of the three important aspects you identified for particular attention.

We understand that you will be receiving recommendations from other sources about appropriate additional financial covenants. We have, therefore, not addressed such covenants in this letter.

We hope you find these remarks helpful. Please do not hesitate to call if you have any comments or questions.

Very truly yours,

RANKIN, McMURRY, VavROSKY
& DOHERTY

Harvey W. Rogers

HWR:vsm
cc: Mr. Fred Hansen
Deputy State Treasurer
Robert Haskins
Office of the Attorney General

So long as general obligation bonds may be issued at lower interest rates than revenue bonds, and so long as Oregon issuers are required to obtain voter approval to issue either revenue bonds or general obligation bonds, Oregon issuers will be likely to seek general obligation bond authority instead of revenue bond authority.

However, since the Department's pollution control bond program provides an unusually favorable market for revenue bonds, the program could induce issuers to seek revenue bond authority when they would otherwise request general obligation bond authority. This would artificially increase the number of revenue bonds submitted to the Department for purchase. Therefore, the Department may wish to establish a policy of encouraging municipalities to seek authority to issue "double barreled" general obligation bonds whenever the municipalities intend to market their bonds to the Department of Environmental Quality. Such a policy could allow the Department to purchase revenue bonds, but only if the municipality demonstrated to the satisfaction of the Department that is was preferable for the municipality to issue revenue bonds. Circumstances tending to establish a the preferability of revenue bonds might include:

1. That the municipality is authorized to issue revenue bonds without voter approval, but must obtain voter approval to issue general obligation bonds;

2. That revenue bonds were authorized to be issued prior to the time the municipality contacted the Department;

3. That the financial structure and existing debt of the applicant make it desirable for the applicant to avoid issuing additional general obligation bonds.

Establishing a policy which discourages the purchase of revenue bonds, but retains the flexibility to purchase such bonds, may reduce the number of revenue bonds presented to the Department for purchase. Reducing the number of revenue bonds purchased by the Department would enhance the Department's security. Retaining the flexibility to purchase revenue bonds under limited circumstances could serve the best interests of the Department, the State of Oregon and its public agencies.

other cases, the utility makes monthly payments to the trustee of amounts sufficient to cover accrued debt service on the bonds. Such monthly monitoring of payments by the trustee permits the trustees to detect cash flow difficulties of the utility at the earliest possible time. This monthly monitoring, together with a debt service reserve equal to at least one year's debt service, allows the trustee and the bond purchaser to implement default remedies quickly, so that the probability of actual default on payment of principal and interest of the bonds is much reduced.

General Comment on Oregon Revenue Bonds.

The Sewage Treatment and Solid Waste Disposal Facility Financing Study recommends Oregon law be changed to permit issuance of revenue bonds without voter approval. That change has not been made. Until the law is changed, the Department should consider the historical and legal context in which Oregon municipalities issue general obligation and revenue bonds. The City of Portland is unusual, in that it is authorized to issue revenue bonds to finance its sewerage facilities without voter approval for each bond issue. Almost all other issuers in the State of Oregon do not have this continuing authority to issue revenue bonds, and must seek voter approval for each bond issue. Almost all issuers of revenue bonds may also issue general obligation bonds if the voters approve. Since the authority to issue revenue bonds is virtually as difficult to obtain as the authority to issue general obligation bonds, issuers usually request authority to issue general obligation bonds, as general obligation bonds may be issued at a substantially lower interest rate.

General obligation bonds, as you know, are secured by the unlimited taxing power of the issuer. However, it is not necessary that a tax actually be levied to pay general obligation bonds, if the issuer is capable of raising funds from other sources. Accordingly, it is quite common for issuers to sell "double-barreled" general obligation bonds: bonds which are secured by the unlimited taxing power of the issuer, but which are in fact repaid from rates and charges obtained from operation of the facility financed with the bonds. Such bonds have the security of general obligation bonds, but the money for their repayment is obtained from the ratepayers who benefit from the facility financed with the bonds.

4. The public agency is required to be audited, and to submit its audits to the Department.

In addition, the Department has extensive default remedies, and appropriate provisions regarding construction of the facilities financed with the proceeds of the bonds.

We believe that the bond purchase agreement currently utilized by the Department is a legally appropriate document which offers substantial security to the Department of Environmental Quality.

However, we do note that each revenue bond issue is, to a certain extent, unique. Unlike Oregon local government general obligation bonds, which are secured by identical taxing powers, each revenue bond issuer will have different methods of charging fees and different systems and customs of operation. It will, therefore, remain appropriate for the Department's staff to familiarize itself with each issuer and facility, and to re-evaluate the provisions of its Bond Purchase Agreement in light of the unique characteristics of each revenue bond issue.

The form of Bond Purchase Agreement we have reviewed was utilized most recently for the purchase of the City of Portland Sewerage Facilities Revenue Bonds, Series 1982. The City of Portland's revenue bonds are highly rated, and the city has a sophisticated staff operating its utility in a relatively healthy and diversified local economy. Revenue bonds purchased by the Department in the future may be less well secured than the revenue bonds of the City of Portland. In such cases, the Department may wish to impose additional financial covenants, and to require that utilities pay their revenues into a revenue fund which is held by a third party (either the Department or a trustee).

Revenue bond issuers are frequently required to deposit their revenues with an independent trustee. In Oregon, this system is used frequently for hospital revenue bonds and industrial development revenue bonds. The bond issuer is required to pay not only debt service, but the trustee's fees and expenses. In some cases, all revenues of the system are deposited initially with the trustee, and are returned to the utility only after the Trustee has used the revenues to pay operation, maintenance and debt service. In

independent review at the expense of the public agency will be unnecessarily costly and burdensome. However, if the Department and the Commission conclude that such an independent review is useful to the Department in monitoring the public agency's performance of its obligations, it would be appropriate to retain such a requirement in the Bond Purchase Agreement. Public agencies may find the provision more acceptable if the frequency with which the Department may require such a review is limited. Reasonable limits should not significantly reduce the Department's security.

General Comments on the Bond Purchase Agreement

The Department has commissioned a "Sewage Treatment and Solid Waste Disposal Facility Financing Study." That study recommends, among other things, that Oregon law be amended to permit Oregon local governments to issue revenue bonds for sewage and solid waste disposal without a vote of the people, and that the Department begin purchasing such bonds. Accordingly, we understand that the Commissioner and the Department are seeking to establish guidelines for the purchase of revenue bonds in the future.

Revenue bonds offer greater theoretical and practical risks to the purchaser than do general obligation bonds. It is therefore desirable to design appropriate covenants and requirements for the issuers of revenue bonds, to maximize the probability that the bondholder will be repaid in a timely fashion.

The form of Bond Purchase Agreement currently utilized by the Department offers the Department the following very significant protections:

1. A reserve account is funded with bond proceeds in an amount equal to the maximum annual debt service on the bonds;

2. The public agency is required to make monthly payments toward its debt service, thus permitting revenue shortfalls to be detected promptly;

3. The public agency is required to generate net operating revenues in each year which are at least equal to 1.3 times the amount required to pay all bond principal and interest maturing in that year.

Department was perceived as politically or economically undesirable by the public agency, the public agency would resist enforcement of the clause, alleging that the Department has violated an implied covenant to be reasonable. While such resistance may ultimately prove futile, litigation of that sort can rarely be resolved quickly and cheaply.

We recommend utilization of clear, objective criteria indicating when the Department is entitled to exercise its default remedies, as we believe such criteria enhance the enforceability of the Department's rights, reduce the probability of protracted and expensive litigation, and increase the marketability of future parity bonds.

For example, the City of Portland is required to generate net operating revenues at least 1.3 times debt service costs. Whether the city is in compliance with this covenant can be easily ascertained from the city's financial statements. The Department could impose additional financial covenants of this type for less well rated bonds of other issuers.

Right to Independent Review

Part A - Section II(II)(D)(1) states:

> "The Department, at the discretion of the Director, shall have the right to obtain an independent expert review of the public agency's financial and audit data at the public agency's expense."

Permitting the Department to obtain an independent review of the public agency's records may enable the Department to obtain better information about the fiscal health of the public agency. Such a right does not interfere with the issuance of future debt, and may permit the Department to detect failures by the public agency to comply with the covenants contained in the Bond Purchase Agreement and the Bond Ordinance. Once detected, the Department would be entitled to enforce its default remedies.

A public agency proposing to execute a bond purchase agreement containing this provision may protest that an

Default If The Department "Deems Itself Insecure"

Part A - Section II(II)(13)(ii) of the Bond Purchase Agreement states, in part, that "if the Department deems itself insecure ... the Department may specify legally permissable actions to be taken by the public agency ..." If the public agency fails to implement the actions specified by the Department, the Department may declare all outstanding bonds immediately due and payable. We recommend that future revenue bond purchase agreements not permit default remedies to be enforced whenever the Department "deems itself insecure." Our recommendation is based on the following three observations:

1. Under Part A - Section II(II)(A)(2) the public agency is required to generate net operating revenues in each year which are at least equal to 130% of bond debt service. If the public agency fails to generate such revenues, it must increase rates. If it fails to increase rates, the Department may exercise its default remedies. This rate covenant is a very substantial protection for the Department, and appears to reduce the value of the "deems itself insecure" provision significantly.

2. In many instances the public agency borrowing from the Department will also be issuing parity bonds in the future. Those bonds may well be sold to institutions or members of the public, and not to the Department. In marketing future debt, it is important that the public agency be able to state clearly to the prospective bond purchasers the circumstances under which prior bond issues could be declared in default. Permitting the Department virtually unlimited latitude to commence default proceedings may adversely affect the marketability of the public agency's future bond issues and interfere with the public agency's completion of future sewer projects. We suggest that this interference is not consistent with the mandate and policies of the Environmental Quality Commission and the Department, where other means are available to protect the Department.

3. The provision, as drafted, invites litigation. If the Department attempted to exercise its powers under the provision, and the action specified by the

Although a gross revenue pledge appears to offer greater security than a net revenue pledge, this may not be the case.

The difference between the two pledges is significant only when there are insufficient revenues to pay both debt service on the bonds and the costs of operation and maintenance of the facilities. With a net revenue pledge, the facilities continue to be operated; with a gross revenue pledge the utility is obligated to pay debt service first. Unfortunately, paying debt service first may well prevent the public agency from continuing to operate the facility. If the facility cannot be operated, it cannot produce revenues in the future. If the system does not produce revenues in the future, it will be unable to pay debt service on bonds maturing in the future.

Therefore, a net revenue pledge may permit the utility to survive a period of hard times, and ultimately repay its bonds, albeit somewhat tardily. Exercise of a gross revenue pledge could prevent the system from continuing to operate and could foreclose the possibility of full payment.

However, under other circumstances, a gross revenue pledge could result in greater or more timely payments to the bondholder.

Additionally, we are advised that many sophisticated bond purchasers no longer attach significance to the difference between a gross revenue pledge and a net revenue pledge, as experience in other states tends to indicate that gross pledges cannot be enforced effectively.

We suggest that a gross revenue pledge does not necessarily offer greater security to a bondholder. Moreover, if the bondholder were able to effectively enforce the gross revenue pledge, the utility financed with the bonds would be forced to cease operating. It may, therefore, be appropriate for the Environmental Quality Commisson and the Department to conclude that a net revenue pledge is more consistent with the mandate and policies of the Commission, as it both provides substantial security for the Department, and is designed to keep the facilities financed with the bonds operating.

A financially healthy utility issuing revenue bonds will generate revenues in excess of the utility's needs for operation, maintenance and debt service. The bond purchaser could require that all excess revenues be placed in trust and held to repay the revenue bonds. Such a requirement would minimize the risk to the bondholder. However, it would prevent the utility from improving or expanding its utility to meet the needs of its ratepayers.

Throughout the country, both revenue bond purchasers and revenue bond issuers have decided that it is inappropriate to require all surplus funds be placed in trust for the benefit of the bondholders. However, this decision is a policy decision, not a legal decision. Moreover, it is a policy decision which reduces the security of the bondholder.

We will now respond to the specific issues raised by the Environmental Quality Commissioners when they recently authorized the purchase of the City of Portland Sewerage Facilities Revenue Bonds, Series 1982. Those responses will be followed by a general discussion of revenue bonds.

Net Revenue Pledge v. Gross Revenue Pledge.

Part A - Section II(II)(A)(1) of the form of Bond Purchase Agreement provides that the revenue bonds are payable solely from, and secured by a first lien and pledge of the revenues of, the sewerage facilities, "after deduction of the expenses of operation, maintenance and administration of the ... facilities." The Environmental Quality Commission has questioned whether it would enhance the security of the Department if the words we have underlined, above, were deleted.

In the municipal bond industry the security provided by the Bond Purchase Agreement, as drafted, is said to be a "net revenue pledge." It is called a net revenue pledge because the pledge is "net" of operation and maintenance expenses of the facility financed with the bonds. On the other hand, a "gross revenue pledge" commits all revenues of the facility to the payment of the bond, and the bondholder is paid before payment of operation and maintenance expenses.

RANKIN, McMURRY, VavROSKY & DOHERTY

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February 10, 1982

HAND DELIVERED

Mr. F. W. O'Donnell
Business Manager
Department of Environmental
Quality
523 S.W. Fifth Avenue
P. O. Box 1760
Portland, Oregon 97207

RE: Policy for the Purchase of Revenue Bonds

Dear Mr. O'Donnell:

You have requested that we review the form of Bond Purchase Agreement used by the Department for revenue bonds, and provide comments on its appropriateness and recommendations for improvement or enhancement of the Department's security as a bondholder.

We wish to preface our remarks by noting that selection of appropriate criteria for the purchase of revenue bonds inevitably involves questions of policy as well as questions of law. General obligation bonds are paid from real property taxes, which are collected without regard to the way in which the facility financed with the bonds is operated. Revenue bonds, on the other hand, are paid solely from funds generated by operating the facility financed with the bonds. In an effort to insure that the revenues will be sufficient to repay the bonds, the revenue bond purchaser imposes restrictions on the operation of the facility. In general, as restrictions increase, risk to the bondholder decreases.

However, the restrictions which protect the bondholder also restrict the ability of the borrower to operate its utility in a manner which is responsive to the needs of its ratepayers.

This tension between security and flexibility may be easily illustrated as follows:

Our concerns then stem from the potential liability posed by this condition as it affects the private lending market's perception of future Portland sewer debt issues. We have been advised that should this added language exist in the City/DEQ agreement at the time of our next sewer bond issue, we could expect to incur interest bids substantially higher than if it were not in effect. This higher interest rate bid would presumably be based on the private lenders' perception of risk brought about through the City's required disclosure of the City/DEQ agreement and the lenders probable interpretation that DEQ has the ability to arbitrarily exercise certain actions affecting City operations which may not be in the best interests of subsequent lenders.

The City Council's decision to proceed with the sale of the bonds was made in spite of Council recognition of the risks posed by the agreement on future sales. However, overriding this risk were several factors including: the need for sludge disposal facilities; the attractive interest rate offer; and the presumed opportunity to approach the EQC at a future time with an appeal for ammendment of the agreements.

As a result of recent discussions with your staff, we are of the understanding that an effort will be made in the near future to develop a model revenue bond purchase agreement that will accompany a revenue bond policy proposal to the EQC. We would like to offer City staff and our recently retained financial advisor, Government Finance Associates, to assist DEQ in development of the model agreement and policy proposal. Should EQC adopt a workable revenue bond policy and model agreement, we feel that a successful City appeal to the EQC for amendment of the existing purchase agreement would be possible.

Thank you again for your support on our recent bond sale. Should you accept our offer for assistance in development of a revenue bond policy and model agreement, we are prepared to make a commitment immediately as necessary to help insure a quality proposal to the EQC.

Very truly yours,

Mark Gardiner, Director
Office of Fiscal Administration

MG:DH:HAH

CITY OF
PORTLAND, OREGON
OFFICE OF FISCAL ADMINISTRATION

Francis J. Ivancie, Mayor
Mark Gardiner, Director
1220 S.W. Fifth Avenue
Portland, Oregon 97204
(503) 248-4038

January 22, 1981

Mr. William H. Young, Director
Department of Environmental Quality
522 SW 5th Avenue
Portland, Oregon 97204

Dear Bill:

On December 16th, the Portland City Council approved the sale of $5,000,000 of Sewer Revenue Bonds. The sale of the bonds was to the Department of Environmental Quality at an interest rate of 7.6%.

Inasmuch as the sale is now assured, I would like to take the opportunity to express the City's thanks to you and your staff for the cooperation and support given to us throughout the process. In addition, I would like to point out a problem we foresee in future public offerings of sewer system debt and suggest a strategy by which this problem can be resolved.

During the December 4th EQC hearing, commission members approved this purchase of Portland's Sewer Revenue Bonds contingent upon the addition of language to two paragraphs in the Proposed Bond Purchase Agreement. Our concern lies only with the language added to Paragraph II, A, 13 (ii) of Part A, Section II of the Agreement. The complete text of this paragraph with the EQC's additions underlined is shown below.

> If the Department deems itself insecure or if the public agency fails to pay principal or interest on any Revenue Bonds when due, the Department may specify legally permissible actions to be taken by the public agency to remedy such default and prevent future defaults. If the public agency fails to commence implementation of such actions within 60 days after the public agency receives written notice from the Department specifying the actions to be taken, the Department may declare the principal of all outstanding Revenue Bonds immediately due and payable.

Our concerns with this paragraph's modification have arisen through consultation with our bond counsel and financial advisor. Specifically, this EQC addition appears to allow DEQ to arbitrarily exercise its right to specify actions directly affecting the operation of Portland's sewerage system. On a practical level we cannot envision a set of conditions that would trigger DEQ's right to specify actions. This practical view is based in part on what we believe to be a good working relationship between DEQ and the City and in part on our own determiniation to insure a financially sound sewerage system.

4. The Department shall have at all times the right to inspect any contracts or other documents executed by the public agency in connection with the operation, maintenance, extension or improvement of the project or its other sewage facilities.

5. It will not modify or cause to be modified or amended its Charter or Ordinances relating in any manner to its sewerage facilities or their operation which would materially and adversely affect the integrity of the Sewage Disposal Fund, or which would materially and adversely affect the ability of the public agency to charge fees sufficient to pay principal and interest on the Revenue Bonds as and when they become payable, without obtaining the prior written consent of the Department.

   This section shall not be deemed as a restriction upon the public agency to fulfill its legislative authority and responsibility to its electorate and citizens in governing its local affairs. The purpose of this section is to insure that the public agency continues to maintain sufficient income rates and tolls for the payment of bonded indebtedness and operating and maintenance costs as set forth in its application and supporting documents.

6. To submit copies of or references to all charters, ordinances or resolutions regarding the public agency's authority to contract, issue bonds and perform all functions and duties necessary and incidental to this advancement of funds that may be required by the Department.

7. The provisions herein may be provided for in more specific detail in any resolutions or ordinances necessary to implement this agreement, or in any supporting documents necessary to establish or to provide for the public agency's eligibility to receive an advancement of funds.

PART A - SECTION III - ACCEPTANCE

On behalf of the City of Portland I, the undersigned, being duly authorized to take such action as evidenced by the attached certified copy of authorization by the public agency's governing body do hereby accept this offer and make the assurances and covenants contained herein.

John M Lang

Signature of Representative

January 12, 1982
Date

John M. Lang, Public Works Administrator
Name and Title of Representative

2. That competent engineering supervision and inspection at the facility will be provided and maintained to insure that the construction conforms with the approved plans and specifications.

D. Operational Provisions

1. It will maintain complete books and records relating to the operation of the facility, the Sewage Disposal Fund and its financial affairs and will cause such books and records to be audited annually at the end of each fiscal year and an audit report prepared, and will furnish the Department with a copy of each annual audit report. At all times, the Department shall have the right to inspect the facility and the records, accounts and data of the public agency relating thereto. The Department, at the discretion of the Director, shall have the right to obtain an independent expert review of the public agency's financial and audit data at the public agency's expense.

2. It will maintain such insurance coverage, which may include a program for self insurance, performance or fidelity bonds in such amounts and in such form as may reasonably be required by the Department for the term of this agreement.

E. Continuing Provisions

1. To indemnify and reimburse the Department for any payments made or losses suffered by the Department on behalf of the public agency as a result of its negligence, omissions or breach of any covenant or condition of this agreement.

2. To not cause or permit any voluntary dissolution of itself, merge or consolidate with another public agency, dispose of or transfer its title to the project, or any part thereof, other than for normal replacement purposes, including lands and interest in lands by sale, mortgage, lease or other encumbrance without obtaining the prior written consent of the Department.

   This section shall not be deemed to prevent mergers or consolidations initiated or commenced as the result of proceedings authorized by the Legislative Assembly of Oregon.

3. It will comply with applicable state laws and the rules and regulations of the Department and continually operate and maintain the facility in good condition upon completion of construction.

(ii) If the Department deems itself insecure or if the public agency fails to pay principal or interest on any Revenue Bonds when due, the Department may specify legally permissible actions to be taken by the public agency to remedy such default and prevent future defaults. If the public agency fails to commence implementation of such actions within 60 days after the public agency receives written notice from the Department specifying the actions to be taken, the Department may declare the principal of all outstanding Revenue Bonds immediately due and payable.

B. Construction Contract Provisions

1. The proposed facility will not be advertised or placed on the market for bidding until final plans and specifications have been approved by the Department and the public agency has been so notified; the actual construction work will be performed by the lump sum (fixed price) or unit price method; and that adequate methods of obtaining competitive bidding will be employed prior to awarding the construction contract, and the award of the contract will be made to the lowest responsive responsible bidder.

2. That construction contracts will require contractors to furnish a performance and payment bond, in an amount equal to the contract amount, and to maintain during the life of the contract adequate fire and extended coverage, workmen's compensation, public liability and property damage insurance.

3. To comply with the provisions of ORS Chapters 279 and 187 relating to bidding, required statements, preference of materials, contributions, liens, payments, labor and working conditions, contract termination and all other conditions and terms necessary to be inserted into public contracts.

4. To demonstrate to the Department that the public agency has a fee simple or other estate or interest in the site of the project, including necessary easements and rights-of-way that is sufficient to assure undisturbed use and possession for the purposes of construction and operation for the life of the proposed loan.

C. Construction Provisions

1. That any change or changes in the contract which make any major alteration in the work required by the plans and specifications or which raise the cost of the project above the latest estimate approved by the Department will be submitted to the Department for prior approval.

10. That in the event that the public agency receives Federal Grant funds applicable to all or any portion of the project, such Federal funds will be applied to prepay outstanding Revenue Bonds.

11. To repay and retire all bonded indebtedness to the Department as rapidly as the State of Oregon is required to repay and retire its bonded indebtedness for pollution control bonds sold at public sale. Such payments shall be made, upon a repayment schedule prepared by the Department, at least 30 days prior to the dates required for state installment payments upon its bonded indebtedness. The public agency may accelerate its repayments to the Department without penalty. The required schedule of principal and interest payments on the Revenue Bonds is contained in Part C of this agreement.

12. To prepare and offer its bonds for sale to the Department at par to an even multiple of $5,000 in an amount not to exceed the total eligible project cost as determined by the Department.

The public agency agrees to issue a single bond in lieu of serial bonds at the option of the Department if otherwise authorized by law.

13. The Department shall have the following remedies upon default:

(i) upon default in the payments of any principal and accrued interest on the bonds or in the performance of any covenant, assurance or agreement contained in the Revenue Bonds, or this Bond Purchase Agreement, or in the instruments incidental thereto, the Department at its option may (a) for the account of the public agency incur and pay reasonable expenses for repair, maintenance and operation of the facility and such other reasonable expenses as may be necessary to cure the cause of default; (b) take possession of the facility, repair, maintain and operate or rent it; (c) utilize any available, equitable or special remedies pursuant to law; (d) a combination of (a), (b) or (c); default under the provisions of the Revenue Bonds, the Bond Purchase Agreement or any instrument incidental thereto may be construed by the Department to constitute default under any other instrument held by the Department and executed or assumed by the public agency and default under any such instrument may be construed by the Department to constitute a default under the Bond Purchase Agreement.

outstanding after delivery of the then proposed Parity Revenue Bonds. "Parity Revenue Bonds" means additional revenue bonds payable equally and ratably on a parity with the Revenue Bonds.

4. To provide all necessary legal opinions required to insure marketability of its bonds from competent bond counsel at its own expense; and to comply with all instructions pertaining to bond preparation and issuance as may be required by bond counsel or the Department.

5. To obtain a rating for the issue by Moody's Investor Services, Inc.

6. To have prepared on its behalf and to adopt ordinances or resolutions deemed necessary by the Department providing for the issuance of its bonds, or entering into of contracts, and containing such terms and in such form as are required by state statutes or regulations of the Department.

7. To provide for a public sale after due advertisement of such bonds in a manner consistent with applicable state statutes and acceptable to the Department.

8. To place the net proceeds of the Revenue Bonds in the Sewage Construction Fund which provides for payment of construction costs of the project; and to establish funds necessary to provide for payment of debt service on the Revenue Bonds.

   This section shall not be deemed to prevent the public agency from investing the proceeds of the bonds in securities authorized by the public agency if the income resulting from such investments is earmarked for the payment of bonded indebtedness upon the bonds purchased by the Department and for the payment of construction, operating and maintenance costs of the facility; and provided further that such investment shall not violate Section 103 of the Federal Internal Revenue Code and regulations adopted thereunder.

9. To use the proceeds of sale of the Revenue Bonds less any amounts required to be segregated in the Debt Redemption Fund Reserve Account and any expenses of sale of the bonds only for the purposes of financing the project as detailed in Part B -- Supplemental Project Information -- of this agreement. In the event that not all the net proceeds are expended on the project, the public agency will send a written report to the Department setting out the physical and financial status of the project and expenditures and advise the Department of its intention to use the remaining funds to either (a) prepay outstanding Revenue Bonds or (b) construct other specified sewerage facilities. The public agency will not proceed to use such remaining funds without the prior written approval of the Department.

PART A - SECTION II - ASSURANCES AND COVENANTS

Now therefore, in consideration of the premises and of the mutual covenants and undertakings of the public agency hereinafter set forth in II:

I. The Department agrees to purchase from the public agency, by placing a bid at the advertised sale held by the public agency, the bonds lawfully issued by said public agency in an amount determined by the Department.

II. The public agency agrees to the following covenants and provisions:

A. Financing Provisions

1. The Revenue Bonds shall be special obligations of the public agency payable from and secured by an irrevocable first lien on and pledge of the revenues of the Sewage Disposal Fund, established under Section 5.04.160 of the public agency's City Code, after deduction of the expenses of operation, maintenance and administration of the related sewerage facilities.

2. The public agency shall establish and fix such user rates and other fees in connection with the facilities and services pertaining to its Sewage Disposal Fund as will provide Net Operating Revenues equal in any Fiscal Year to at least 1.3 times the amount required in any such fiscal year to pay the principal of and interest on all outstanding bonds payable directly or indirectly out of the Sewage Disposal Fund including Parity Revenue Bonds outstanding, if any. For the purposes of this section, Net Operating Revenues are defined as Operating Revenues from service charges, fees and assessments less Operating Expenses including salaries, wages, operating supplies, repairs and maintenance, utilities, insurance and administrative expenses.

3. The public agency hereafter and until the Revenue Bonds are fully paid, shall only issue Parity Revenue Bonds if the following conditions have been met, as acknowledged in writing by the Department:

(a) The public agency is not in default as to any covenant, condition or obligation contained in the Revenue Bonds or herein; and

(b) The public agency certifies in writing to the Department that the Net Operating Revenues as defined in II A 2 above in each fiscal year thereafter are estimated to be at least equal to 1.3 times the average annual principal and interest requirements of all Revenue Bonds and Parity Revenue Bonds to be

Summation

1. The City of Portland has requested the Department to amend the revenue bond purchase agreement (Attachment 1) by deletion of the words "If the Department feels itself insecure or ..." in Part A Section II A 13(ii).

2. In the opinion of bond counsel, the bond purchase agreement currently utilized by the Department is a legally appropriate document which offers substantial security to the Department.

3. The Department intends to continue its review of revenue bonds with the object of amending Administrative Rules where necessary and finalizing standard forms of bond purchase agreements.

Director's Recommendation

Based upon the summation, it is the Director's recommendation that the revenue bond purchase agreement with the City of Portland be amended to delete the words "If the Department feels itself insecure or ..." in Part A Section II A 13(ii).

Bill

William H. Young
Director

Attachments:
1. Bond purchase agreement
2. Letter, City of Portland
3. Letter, bond counsel
4. Letter financial consultant

BH327
F. W. O'Donnell:h
(503)229-6270
March 25, 1982

The Department accordingly requested the opinion of bond counsel on these specific points as well as a review of the entire bond purchase agreement and any recommendations for its improvement. Staff also reviewed bond market practice with regard to such provisions.

Evaluation and Alternatives

Letters from Rankin, McMurry, VavRosky and Doherty, bond counsel, and Government Finance Associates, municipal financial consultants are attached. A brief summary of the content of these letters relating to the point raised follows:

1. A Net Revenue Pledge is more appropriate than a Gross Revenue Pledge, particularly in view of the mandate and policies of the Commission, as it both provides substantial security and is designed to keep the facilities operating.

2. The clause "If the Department deems itself insecure or ..." is inappropriate and should be removed, thereby agreeing to the request by the City of Portland. A public agency in marketing its bonds needs to be able to state clearly to prospective bond purchasers the circumstances under which prior bond issues could be declared in default. The provision could also invite litigation.

3. While the value of having an independent review or supplemental audit is recognized, it is suggested that the language be changed to more clearly identify the circumstances under which such a review might take place e.g. deterioration of Net Operating Revenues below the level required by the Rate Covenant or use of any monies from the Debt Service Reserve Account. It is also recommended that appointment of auditors be subject to the Department's approval.

A feature not utilized in the City of Portland transaction but recommended for consideration by bond counsel is the appointment of a trustee to receive revenues, handle debt service and generally look after the interest of bondholders. The Department will make appointment of a trustee a standard requirement in future revenue bond purchases.

In general, bond counsel believes that the bond purchase agreement currently utilized by the Department is a legally appropriate document which offers substantial security to the Department.

The Department intends to continue its review of revenue bonds with the object of amending Administrative Rules where necessary and finalizing standard forms of bond purchase agreements appropriate to (a) general obligation and (b) revenue bonds.

The alternative available to the Commission is to deny the City of Portland's request to change the bond purchase agreement.

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: Director

Subject: Agenda Item No. Q , April 16, 1982, EQC Meeting

Request by City of Portland to amend revenue bond purchase agreement (Item H, December 4, 1981 EQC agenda), including review and recommendations by bond counsel on the form of agreement used by the Department.

Background

The Commission at its meeting on December 4, 1981 approved the purchase of revenue bonds from the City of Portland. In reviewing the bond purchase agreement, the Commission discussed and dealt with the following three points (references to bond purchase agreement Attachment 1):

1. Part A Section II A 1. Consideration was given to changing from a Net Revenue Pledge to a Gross Revenue Pledge by elimination of the words "after deduction of the expenses of operation, maintenance and administration of the sewerage facilities." Following discussion no change was made but staff were asked to further research this and the lien position.

2. Part A Section II A 13(ii). The prefatory clause "if the Department deems itself insecure or ... " was added to the section establishing criteria for the Department to specify actions to remedy and prevent defaults.

   The City of Portland, after consultation with its legal and financial advisors, has expressed serious concern about this clause and has requested that it be removed (Attachment 2).

3. Part A Section II D 1. Regarding provision for accounting and auditing the sentence "The Department, at the discretion of the Director, shall have the right to obtain an independent expert review of the public agency's financial and audit data at the public agency's expense." was added.

Amend OAR 340-73-060(2) by adding a new subsection (f) as follows:

(f) Gravel-less disposal trench systems shall be constructed using corrugated polyethylene pipe, fittings and couplings that comply with the requirements of ASTM F 667. The pipe shall have two rows of holes spaced approximately one hundred twenty (120) degrees apart, and approximately one hundred twenty (120) degrees apart each from the location stripe which shall be a contrasting color. The drain holes shall be a minimum of one-half (1/2) inch diameter. The minimum outlet area shall be one (1) square inch per lineal foot of pipe. There shall be at least one (1) drain hole present in the valley of each corrugation. The gravel-less disposal trench pipe shall have a minimum inside diameter of ten (10) inches, and be encased in a factory-installed filter fabric wrap acceptable to the Department. Each manufacuter of this pipe shall certify in writing to the Department that the pipe and fittings to be distributed for use in absorption facilities within the State of Oregon will comply with all requirements of this subsection.

NOTE: Underlined _____ material is new

XL1490
3/26/82

Attachment "E"

Amend OAR 340 Division 71, by adding a new rule, OAR 340-71-355 as follows:

340-71-355 GRAVEL-LESS DISPOSAL TRENCH SYSTEMS.

(1) Gravel-less disposal trench systems may be permitted on any site providing:

(a) The site fully complies with the criteria for installation of a standard subsurface sewage disposal system, as identified in OAR 340-71-220(2); and

(b) The site has sandy loam, loamy sand, or sand soil textures; and

(c) It serves a single family dwelling.

(2) Distribution pipes for gravel-less disposal trench systems shall conform to the requirements in OAR 340-73-060(2)(f).

(3) Gravel-less disposal trench systems shall be constructed pursuant to the standards identified in OAR 340-71-220.

Exceptions:

(a) The bottom trench width shall not be less than eighteen (18) inches wide; and

(b) The provisions of OAR 340-71-220(8)(e), (f), and (g) are not applicable.

Amend OAR 340-73-060(2) by adding a new subsection (f) as follows:

(f) Gravel-less disposal trench systems shall be constructed using corrugated polyethylene pipe, fittings and couplings that comply with the requirements of ASTM F 667. The pipe shall have two rows of holes spaced approximately one hundred twenty (120) degrees apart, and approximately one hundred twenty (120) degrees apart each from the location stripe which shall be a contrasting color. The drain holes shall be a minimum of one-half (1/2) inch diameter. The minimum outlet area shall be one (1) square inch per lineal foot of pipe. There shall be at least one (1) drain hole present in the valley of each corrugation. The gravel-less disposal trench pipe shall have a minimum inside diameter of ten (10) inches, and be encased in a factory-installed filter fabric wrap acceptable to the Department. Each manaufacturer of this pipe shall certify in writing to the Department that the pipe and fitting to be distributed for use in absorption facilities within the State of Oregon will comply with all of the requirements of this subsection.

NOTE: Underlined _____ material is new

XL1489
3/26/82

Attachment "D"

Amend OAR 340 Division 71, by adding a new rule, OAR 340-71-355 as follows: .

340-71-355 GRAVEL-LESS DISPOSAL TRENCH SYSTEMS.

(1) Gravel-less disposal trench systems may be permitted on any site meeting the requirements for installation of standard subsurface systems.

(2) Distribution pipes for gravel-less disposal trench systems shall conform to the requirements in OAR 340-73-060(2)(f).

(3) Gravel-less disposal trench systems shall be constructed pursuant to the standards identified in OAR 340-71-220.

Exceptions:

(a) The bottom trench width shall not be less than eighteen (18) inches wide; and

(b) The provisions of OAR 340-71-220(8)(e), (f), and (g) are not applicable.

Attachment "C"

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of the Proposed Adoption of Gravel-less Disposal Trench Alternative On-Site Sewage Disposal System Rules, OAR 340-71-355 and OAR 340-73-060(2)(f)	))))	Statutory Authority, Statement of Need, Principal Documents Relied Upon and Statement of Fiscal Impact

1. Citation of Statutory Authority: ORS 454.625, which requires the Environmental Quality Commission to adopt rules for the purpose of carrying out ORS 454.605 to 454.745.

2. Need for Rule: A need would exist if drainfield-quality gravel was not reasonably available. Some geographic areas of the state (such as portions of Eastern Oregon) do not have gravel sources locally available. The costs of transportiing upwards of twenty-five or more cubic yards of gravel over any great distance can cause the gravel to be economically unfeasible. The same is true of potential sites that have no road access.

3. Documents, Reports, and Studies Relied Upon in Proposing the Rule:

   Letter of October 28, 1980, to Mark P. Ronayne (Department of Environmental Quality) from John R. Barnes (Advanced Drainage Systems, Inc.)

   Letter of December 9, 1981, to Sherman O. Olson (Department of Environmental Quality) from Timothy J. Lang (Advanced Drainage Systems, Inc.)

   Letter of December 16, 1981, to Sherman O. Olson (Department of Environmental Quality) from Timothy J. Lang (Advanced Drainage Systems, Inc.)

   Report and Appendices, prepared by B. L. Carlile and D. J. Osborne, entitled "Evaluation of SB2 Wastewater Disposal Systems in Montgomery County, Texas," printed in May 1981.

   The above documents are available for public inspection at the Office of the Department of Environmental Quality, 522 S.W. Fifth Ave., Portland, Oregon, during regular business hours, 8 a.m. to 5 p.m., Monday through Friday.

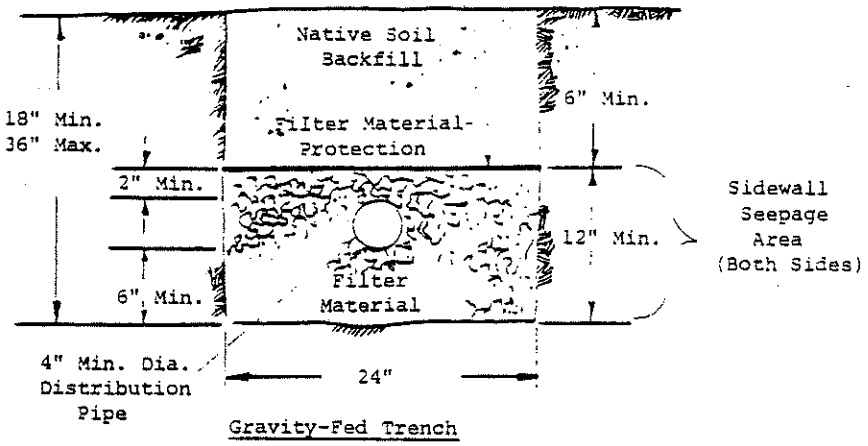
4. Fiscal and Economic Impacts:

   Adoption of the gravel-less disposal trench alternative system rule will provide an alternative to a system using gravel-filled trenches. It will not increase costs, and may be less expensive to install in areas where the cost of gravel or its transport costs are high. It should have no economic impact upon small business in general. Gravel suppliers may be impacted if their cost of supplying gravel to building sites is high enough to make the gravel-less disposal trench economically competitive.

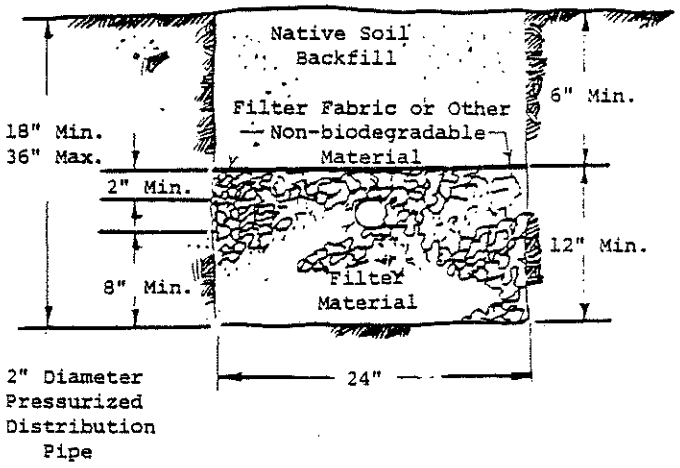
XL1495

DIAGRAM 12

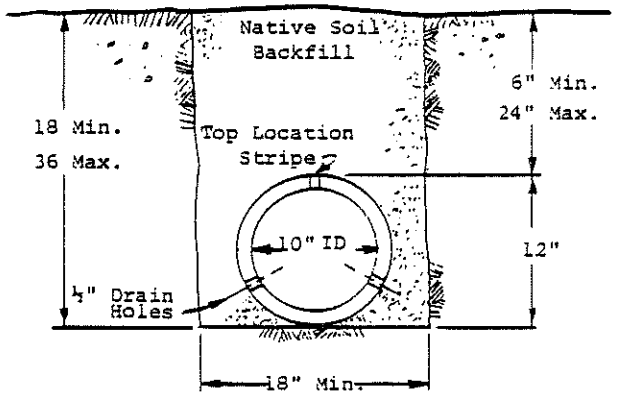
DISPOSAL TRENCH CROSS SECTION



Gravity-Fed Trench



Pressurized Distribution



Gravel-less Distribution Line

TABLE 5

Minimum length of disposal trench or gravel-less subsurface disposal line (linear feet) required per one hundred fifty (150) gallons projected daily sewage flow determined from soil texture versus depth to temport groundwater.

DEPTH TO TEMPORARY GROUNDWATER	24" to less than 48"	100	125	150
	48" or more	75	100	125
SOIL GROUP*		A	B	C

* Soil Group A - Sand, Loamy Sand, Sandy Loam

Soil Group B - Sandy Clay Loam, Loam, Silt Loam, Silt, Clay Loam

Soil Group C - Sitly Clay Loam, Sandy Clay, Silty Clay, Clay

OAL24 (1) Table - 5

TABLE 4

Minimum length of disposal trench or gravel-less subsurface disposal line (linear feet) required per one hundred fifty (150) gallons projected daily sewage flow determined from soil texture versus effective soil depth.

EFFECTIVE SOIL DEPTH	18" to less than 24"	125	150	175
	24" to less than 36"	100	125	150
	36" to less than 48"	75	100	125
	48" or more	75	75	125
SOIL GROUP*		A	B	C

* Soil Group A - Sand, Loamy Sand, Sandy Loam

Soil Group B - Sandy Clay Loam, Loam, Silt Loam, Silt, Clay Loam

Soil Group C - Silty Clay Loam, Sandy Clay, Silty Clay, Clay

OAL24 (1) Table - 4

340-71-415 Formal Variances.

(1) Variances from any standard contained in Rules 340-71-220 and 340-71-260 through 340-71-315, but including 340-71-355 may be granted to applicants for permits by special variance officers appointed by the director.

Appendix F, Section II-A-6

(6) Gravel-less subsurface disposal systems shall be constructed using corrugated polyethylene pipe meeting the requirements of ASTM F 667. The pipe shall have two rows of holes spaced approximately one hundred and twenty (120) degrees apart and approximatly one hundred and twenty (120) degrees apart each from the location stripe which shall be a contrasting color. The drain holes shall be a minimum of one-half (½) inch diameter. The minimum outlet area shall be one (1) square inch per lineal foot of pipe. There shall be at least one (1) drain hole present in the valley of each corrugation.

The gravel-less subsurface disposal pipe shall be encased in a factory installed spun-bonded nylon filter fabric meeting the following requirements:

(1) Weight (oz. per sq. yd.)
Per ASTM F 1910 - 0.85 ounces (nominal)

(2) Fiber Size, Denier per Filament (dpf)
4.7 (nominal value)

Corrugated polyethylene pipe shall be installed in twenty (20) foot sections or less and shall be connected with polyethylene fittings and couplings that comply with the requirements of ASTM F 667.

340-71-355 Gravel-less Subsurface Disposal Systems.

(1) Gravel-less subsurface disposal systems may be permitted on any site meeting the requirements for installation of standard subsurface systems, or other sites where this method of effluent distribution is desired. Gravel-less subsurface disposal systems must be used in conjuntion with septic tanks that meet the requirements of Section 340-71-355(4).

(2) Distribution lines for gravel-less subsurface disposal systems shall conform to the requirements in Appendix F, Section II-A-6.

(3) Gravel-less subsurface disposal systems shall be designed and sized on the information contained in Tables 4 and 5.

(4) (a) Gravel-less leach bed disposal lines shall be constructed in accordance with the standards listed in the following table, unless otherwise allowed or required within a specific rule of this division:

Maximum length of trench	125 feet
Minimum bottom width of trench	18 inches
Minimum depth of trench, using:	
Equal or loop distribution	18 inches
Serial distribution	24 inches
Maximum depth of trench	36 inches
Minimum distance of undisturbed earth between trenches	8 feet

NOTE: Trench dimensions given are for the excavated trench prior to installation of the gravel-less leach bed tubing and backfilling.

(b) Backfill shall be of native soil, free of large stones, frozen clumps of earth, masonry, stumps, or waste construction material, or other materials that could damage the system. Gravel or crushed stone is not required.

(c) Gravel-less leach bed lines shall be constructed in accordance with Diagram 12. System layout shall vary depending on site conditions, but may be laid out as shown in Diagrams 1, 2, 3, 4, 5, and 11.

ATTACHMENT "B"

ADVANCED DRAINAGE SYSTEMS, INC.

3300 RIVERSIDE DRIVE P. O. BOX 21307 COLUMBUS, OHIO 43221 (614) 457-3051 TELEX NO. 245-461

December 9, 1981

Mr. Sherman O. Olson, Jr. R.S.
Subsurface-Sewage Systems Section
Department of Environmental Quality
P. O. Box 1760
Portland, Oregon 97207

Dear Mr. Olson:

Per our discussion, I have attached a copy of our proposed gravel-less subsurface disposal system regulations for your review. I hope that you will find this proposed regulation to be properly worded and structured. However, if any revisions are required, I would be pleased to discuss them with you when we meet in Chicago.

We would like to take this opportunity to request that this proposed regulation be adopted by the State of Oregon and be included in Chapter 340--Division 71 of the Oregon Administrative Rules.

We sincerely appreciate your cooperation concerning this request.

Sincerely,

Timothy J. Lang
Product Manager

TJL/dd

Attachment

With this in mind, ADS has chosen to fund a comprehensive review of 100 to 150 SB2 systems in Montgomery County, Texas. This study is being conducted by Manning Engineering of Houston and Austin and by Dr. Bob Carlile who is temporarily attached to Texas A & M University. It includes all factors pertaining to soil absorption system success - - including percolation rates, soil analysis, groundwater depth, etc.

We expect to have the results of these studies in the near future and will forward them to you as they become available.

We hope the above information will help you in your review of the SB2 concept. We would like to request a formal approval to install the SB2 in the State of Oregon. We would be very happy to discuss either this request or the SB2 design at any time should you have any questions.

Thank you for your interest in the SB2. We look forward to hearing from you in the near future.

Sincerely,

John R. Barnes

John R. Barnes R.S.
Consulting Sanitarian

7. Installation procedures are the key to the success of the SB2. In general, it can be installed in any way that conventional systems are currently installed -- drop boxes, stepdown system, etc. We are presently preparing a set of comprehensive installation guidelines for the SB2. We have enclosed a copy of the rough draft for your use.

8. SB2 programs have been instituted in more than 25 states with more to follow. To date, we have not heard of any problems in any of these states. We feel the level of success is directly attributable to our insistance on approvals from the various Health Departments and our strict control concerning site conditions and soil permeability.

9. The SB2 comes prewrapped in Drain Guard Protective Wrap and is encased in a black polyethylene bag from the factory to prevent damage to the tubing. It is currently sold in this form a $2.10 per foot.

10. Several formal SB2 test programs have been initiated in various parts of the country:

    a. Dr. Roger Machmeier of the University of Minnesota has installed a complex SB2 system near Anoka, Minnesota. This SB2 system includes Pumps and meters between each 20 foot length of SB2. This system has been monitored for more than two months and preliminary indications are that the SB2 distributes effluent more effectively than we are currently claiming.

    b. Another test installation has been made by North Carolina State University. This system employs a common tank and several different types of leach bed designs installed in 200 minute per inch soil. This system will be heavily dosed until failure of the various leach beds. This will provide invaluable information concerning the effectiveness of the SB2 when compared with other leach bed designs in poor soil areas. This project was begun under the guidance of Dr. Bob Carlile.

    c. Texas was the first state to formally accept the SB2 for standard installation. For this reason, our oldest systems are in Texas -- some of which were installed in 1978. More than 1000 SB2 systems are now operating in Texas alone.

the vast majority of the suspended solids leaving the septic tank are smaller than 100 microns and, therefore, easily pass through the Drain Guard into the soil. If the solids build up faster than they can be broken down, a bio-matt will form. Early indications are that the bio-matt will form outside the Drain Guard in the soil.

4. As you know, most conventional gravel leach beds fail in stages. Because the first several feet of each trench receive all of the effluent that is channeled into that trench, the bio-matt or slime layer forms in the beginning of the trench first. Once this layer becomes relatively impermeable, the effluent must move down to the next portion of the trench and the slime layer begins to build up again. For this reason, many authorities are beginning to recognize the advantages of equal effluent distribution throughout the entire leachfield. Equal distribution eliminates the extremely heavy dosing in the first few feet of each trench and allows the aerobic bacteria throughout the entire leachfield to act on the suspended solids. Because of the placement of the drainholes, a level SB2 line must fill from one end to the other before the effluent can spillover to the soil interface. Since suspended solids in the effluent tend to stay in suspension for several hours it follows that equal effluent distribution will result in equal distribution of suspended solids.

5. Because of the placement of the drain holes in the SB2, the SB2 actually acts as an extension of the septic tank. The SB2 allows for slow movement of effluent (Because of large diameter), increased retention time of effluent and promotes additional settling of suspended solids prior to the effluent reaching the soil interface. This results in a more clarified effluent (suspended solids only) reaching the soil interface and the development of a thinner and more permeable bio-matt.

6. Due to increased settling of suspended solids in the SB2, nitrates reaching the water table should be reduced since nitrates tend to be attached to suspended solids.

ATTACHMENT "A"

ADVANCED DRAINAGE SYSTEMS, INC.

3300 RIVERSIDE DRIVE P. O. BOX 5807 COLUMBUS, OHIO 43221 (614) 457-3051 TELEX NO. 245-461

October 28, 1980

Mr. Mark P. Ronayne
Department of Environmental Quality
Alternative System Specialist
Subsurface and Alternative Sewage
Systems Section
Water Quality Division
P.O. Box 1760
Portland, Oregon 97207

Dear Mr. Ronayne:

As per our telephone conversation of October 23, 1980, I would like to provide you with the following information:

1. The SB2™ was designed as an alternative to conventional gravel soil absorption systems. We do not advocate its use in areas where conventional systems are not allowed. The SB2 can also be used to dispose of effluent from aerobic treatment plants.

2. The 10-inch tubing used in the SB2 is the same tubing used for culverts, highway underdrains, and storm sewers. In fact, our tubing was recently approved by the F.A.A. for runway underdrains. Also, in addition to approximately 30 state Department of Transportation approvals, an ASTM specification covering our larger sizes (10 inch through 15 inch) will be published in the near future. Finally, I have enclosed a copy of an SB2 test report from Wadsworth Testing Laboratories for your use.

3. The Drain Guard protective wrap around the SB2 has been successfully used in thousands of problem soil conditions over the last eight or nine years. It is a chemically-inert, spun bonded nylon fabric with a pore size of approximately 100 microns. As you know,

Summary

1. ORS 454.625 provides that the Commission, after hearing, may adopt rules for on-site sewage disposal.

2. Staff received a request to amend the rules to allow installation of gravel-less disposal trench systems.

3. On January 22, 1982, the Commission authorized public hearings to be held on amendments to the rules, including proposed rules for the gravel-less disposal trench alternative system.

4. After proper notice, four public hearings were held at various locations around the state on February 2, 1982.

5. On March 5, 1982, the Commission was presented with a staff report recommending adoption of proposed amendments to the on-site sewage disposal rules. The Commission deferred consideration of the proposed gravel-less disposal trench rules until their next scheduled meeting, on April 16, 1982.

Director's Recommendation

Based upon the Summation, it is recommended the Commission adopt the proposed gravel-less disposal trench alternative on-site systems rules, OAR 340-71-355 and OAR 340-73-060(2)(f), as set forth in Attachment "E".

Bill

William H. Young

Attachments: 5
- A. Letter requesting rule amendment
- B. Letter with proposed rule language
- C. Statement of Need, Statutory Authority, Documents Relied Upon, and Fiscal Impact
- D. Proposed rule language for Alternative 1
- E. Proposed rule language for Alternative 2.

Sherman O. Olson:l
XL1494
229-6443
March 26, 1982

1. Adopt the proposed gravel-less disposal trench rule, including the pipe materials standard, as specified in Attachment "D".

2. Adopt the proposed gravel-less disposal trench rule, including the pipe materials standard, as specified in Attachment "E".

3. Do not adopt rules that allow the use of the gravel-less disposal trench.

Alternative 1, as specified in Attachment "D", would allow installation of this proposed alternative system at any site where a standard system could be installed. Soil textures could range from sand to clay, and the system size would be limited only as required for systems with projected daily flows greater than 2,500 gallons. It is staff's opinion that Alternative 1 may be too broad. The primary study sites examined by Carlile and Osborne dealt almost entirely with systems serving single-family dwellings, therefore use of this system for larger flows may not be appropriate. In the primary study they examined 50 systems, including 10 using conventional construction. Staff found 21 systems in this study used the gravel-less trench concept only, not including repaired systems, add-on systems, or mounds. Almost without exception these systems were placed into soil textures of sandy loam, loamy sand, and sand. Most of these systems were functioning properly without failure. The few (5) failing systems were attributed to either a high groundwater condition or improper installation (pipe placed perpendicular to land contours) or both. The fabric-wrapped pipe was not found to be a factor. The Carlile-Osborne study does not appear to contain sufficient information to expand application of this concept into finer textured soils, or flows from other than dwellings.

Alternative 2, as specified in Attachment "E", would limit the use of gravel-less disposal trench systems to single family dwellings, and installation only at sites that fully qualify for standard system installation, with soil textures of sandy loam, loamy sand, and sand. The Carlile-Osborne study is sufficiently complete to justify implementation of their findings within this state. They looked at whether the large diameter fabric-wrapped pipe would function differently than a conventional system. They found no difference at the sites they examined. Staff would expect a gravel-less disposal trench system to function identically to a standard system using gravel-filled trenches, installed in the coarser soil textures, and recommends the Commission adopt this alternative.

Adoption of Alternative 3 would eliminate the gravel-less disposal trench option entirely. This is not supported because of the discussion above.

At the January 22, 1982 meeting, the Commission authorized public hearings to be held on many proposed rule amendments, including the gravel-less disposal trench alternative system. Notice of public hearing was provided by publication of notice in the Secretary of State's Bulletin, and mailing to: Public Affairs statewide "Media" list; the On-Site mailing list; all DEQ Regional, Branch, and Agreement County offices; and the On-Site Sewage Consultants list. Four public hearings were held at various locations around the state (Portland, Bend, Newport, and Medford).

At the March 5, 1982 meeting, the Commission was provided a staff report, Agenda Item N, requesting adoption of the proposed amendments. Mr. Douglas Marshall, Senior Sanitarian with Tillamook County, expressed his concerns to the Commission that the proposed gravel-less disposal trench system rules contained language favoring one pipe manufacturer to the exclusion of another, and that because the concept was new to this state, installation should be limited.

The Commission adopted the proposed rule amendment package except for the proposed gravel-less disposal trench alternative system language (OAR 340-71-355) and the pipe specification (OAR 340-73-060(2)(f)). The Commission deferred these two proposed amendments to their next scheduled meeting on April 16, 1982.

The "Statement of Need", "Statutory Authority", "Documents Relied Upon", and "Statement of Fiscal Impact" are addressed within Attachment "C".

Alternatives and Evaluation

Staff have reexamined the proposed pipe specification (OAR 340-73-060(2)(f)), and made some revisions. Language identifying a specific filter fabric wrap was replaced with general language requiring the pipe be encased in a factory-installed filter fabric wrap acceptable to the Department. This would allow the Department to exercise reasonable judgment in determining whether the filter fabric will perform its purpose. Also, language similar to that found in other pipe specifications was added, requiring that the pipe manufacturers provide assurances they will conform to the pipe standard. These changes have been incorporated into Alternatives 1 and 2 following.

A detailed review of gravel-less trench literature, particularly the Carlile-Osborne report, was also done. Based upon that review, staff developed an alternative (Alternative 2, as specified in Attachment "E") to the siting proposal presented to the Commission on March 5, 1982. The original siting proposal deferred at that meeting is presented again as Alternative 1, as specified in Attachment "D". It appears the Commission has three possible alternatives:

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: Director

Subject: Agenda Item No. P, April 16, 1982, EQC Meeting

Proposed Adoption of Gravel-less Disposal Trench Alternative On-Site Systems Rules, OAR 340-71-355 and OAR 340-73-060(2)(f)

Background and Problem Statement

ORS 454.625 provides that the Commission, after hearing, may adopt rules for on-site sewage disposal.

Department staff received a request from Mr. John R. Barnes, R.S., Consulting Sanitarian, Advanced Drainage Systems, Inc. (ADS), requesting the Oregon Administrative Rules governing On-Site Sewage Disposal be amended to allow the use of large diameter filter fabric wrapped polyethylene pipe (SB2) as an alternative to a standard gravel-filled trench (Attachment "A"). The Department was supplied with several documents, including a detailed report entitled "Evaluation of SB2 Wastewater Disposal Systems in Montgomery County, Texas," authored by B. L. Carlile (Visiting Soil Specialist, Texas A & M University) and D. J. Osborne (Soil Scientist, North Carolina State University). Discussions between staff and ADS representatives occurred, resulting in ADS suggesting proposed rule language to amend the Oregon Administrative Rules (Attachment "B"). Staff reviewed the proposed language, made some revisions, and incorporated the revised language into the staff report (Agenda Item D) taken to the Commission on January 22, 1982.

Staff has looked at the question of whether a need exists for this type of alternative system. A need would exist if drainfield-quality gravel was not reasonably available. Some geographic areas of the state (such as portions of Eastern Oregon) do not have gravel sources locally available. The costs of transporting upwards of twenty-five or more cubic yards of gravel over any great distance can cause the gravel to be economically unfeasible. The same is true of potential sites that have no road access. In staff's opinion, the need for a gravel-less alternative system exists.

ATTACHMENT F

VICTOR ATIYEH
GOVERNOR

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

MAILING ADDRESS: P.O. BOX 1760, PORTLAND, OREGON 97207

March 31, 1982

Bruce Williams
City Manager
400 E. Main St.
Cottage Grove, OR 97424

Dear Bruce:

We were very pleased to receive your letter of March 25, 1982 confirming the commitment of the City Council of Cottage Grove to the sewerage improvement program.

I am in complete agreement with your conclusion that present circumstances now favor your moving ahead on an energetic timetable. In fact, I would like to emphasize again the crucial importance of following the hoped-for election result with a bond sale as fast as possible.

Assuming no upsets or undue delays, your timetable should enable you to take advantage of the relatively cheap money now available in the bond fund on a first-come-first-served basis. Our Business Office is available to advise you on the application documents.

We look forward to presenting your plan at the April 16th EQC meeting.

Good luck on May 18!

Sincerely,

Bill

William H. Young
Director

FWO'D:k
BK768

ATTACHMENT E
Agenda Item O
April 16, 1982 EQC meeting

CITY OF COTTAGE GROVE
400 E. Main Street, Cottage Grove, Oregon 97424

March 25, 1982

OFFICE OF THE CITY MANAGER

William H. Young, Director
Department of Environmental Quality
Box 1760
Portland, OR 97207

Dear Bill:

The City Council of Cottage Grove has authorized me to submit on their behalf a three million dollar sewerage improvement program for consideration and approval by your agency. The program has been developed without the use of federal assistance and addresses the concerns of your agency for at least the next ten-year period. Our plans center around a very energetic timetable as is evidence by the proposal. However, we feel conditions for implementing our proposal will never again be as favorable as they are now. You have indicated that the State will buy our bonds at a very low rate of interest(7-3/4%) which is several percentage points below the current market rate for municipal bonds. Construction projects are running much lower than engineering estimates at this time as much as 20% because of the economy. We are prepared to go to bid immediately after favorable voter approval of the bond issue question on the interceptor portion of our proposal. We have also prepared our proposal in such a manner that if federal assistance were to become available we could take advantage for that portion of the program not yet under contract.

We sincerely believe that what we have presented represents the only alternative we have at this point, and rather than continue to postpone the problem we want to deal with it now. We, therefore, hope you look upon our proposal favorably, and we look forward to meeting with you and the EQC as soon as possible.

If you have any questions regarding our plan, please don't hesitate to call on me.

Sincerely,

Bruce Williams
City Manager

BW:jw
cc: Larry Lowenkron

for master plan implementation and no other option for service is practicably available.

(v) An acceptable receiving stream or method of effluent disposal is available for the temporary facility.

Compliance schedules and other permit requirements may be modified to incorporate an approved interim program. Compliance with a permit so modified will be required at all times.

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

8. Any sewerage utility that is presently in compliance and forsees a need to plan for future expansion to accommodate growth but elects to wait for federal funds for planning and construction will make such election with full knowledge that if existing facilities reach capacity before new facilities are completed, a moratorium on new connections will be imposed. Such moratorium will not qualify them for any special consideration since its presence is deemed a matter of their choice.

9. The Department will continue to assist cities to develop interim and long-range programs, and construction schedules and to secure financing for essential construction.

HLS:g
WL1057.A (1)

4. Existing sewerage facility plans which are awaiting design and construction should be updated where necessary to include:

   a. Evaluation of additional alternatives where appropriate, and re-evaluation of costs of existing alternatives;

   b. Identification and delineation of phased construction alternatives; and

   c. A financing plan which will assure ability to construct facilities over an appropriate time span with locally derived funds.

5. New sewerage works facility planning initiated after Oct. 1, 1981 should not be approved without adequate consideration of alternatives and phased construction options, and without a financing plan which assures adequate funding for construction, operation, maintenance and replacement of sewerage facilities.

6. The EQC recognizes that many cities in need of immediate sewerage works construction have completed planning and are awaiting design or construction funding. These cities have developed their program relying on 75% federal grants. They will have difficulty developing and implementing alternatives to fund immediate construction needs. Many are, or will be, under moratoriums on new connections because existing facilities are at, or near, capacity. The EQC will consider the following interim measures as a means of assisting these cities to get on a self-supporting basis provided that an approvable long-range program is presented:

   a. Temporary increases in waste discharge loading may be approved provided a minimum of secondary treatment, or equivalent control is maintained and beneficial uses of the receiving waterway are not impaired.

   b. Installation and operation of temporary treatment works may be approved providing:

      (i) The area served is inside an approved urban growth boundary and the proposal is consistent with State Land Use Planning laws.

      (ii) A master sewerage plan is adopted which shows how and when the temporary facilities will be phased out.

      (iii) The public agency responsible for implementing the master plan is the owner and operator of the temporary facilities.

      (iv) Sewerage service to the area served by the temporary facility is necessary as part of the financing program

ATTACHMENT D

New rule adopted by the EQC on October 9, 1981.

OAR 340-41-034 Policy on Sewerage Works Planning and Construction

Oregon's publicly owned sewerage utilities have since 1956 developed an increasing reliance on federal sewerage works construction grant funds to meet a major portion of the cost of their sewerage works construction needs. This reliance did not appear unreasonable based on federal legislation passed up through 1978. Indeed, the Environmental Quality Commission (EQC) has routinely approved compliance schedules with deadlines contingent on federal funding. This reliance no longer appears reasonable based on recent and proposed legislative actions and appropriations and the general state of the nation's economy.

The federal funds expected for future years will address a small percentage of Oregon's sewerage works construction needs. Thus, continued reliance by DEQ and public agencies on federal funding for sewerage works construction will not assure that sewage from a growing Oregon population will be adequately treated and disposed of so that health hazards and nuisance conditions are prevented and beneficial uses uses of public waters are not threatened or impaired by quality degradation.

Therefore, the following statements of policy are established to guide future sewerage works planning and construction:

1. The EQC remains strongly committed to its historic program of preventing water quality problems by requiring control facilities to be provided prior to the connection of new or increased waste loads.

2. The EQC urges each sewerage utility in Oregon to develop, as soon as practicable, a financing plan which will assure that future sewerage works construction, operation, maintenance and replacement needs can be met in a timely manner. Such financing plans will be a prerequisite to Department issuance of permits for new or significantly modified sewerage facilities, for approval of plans for new or significantly modified sewerage facilities, or for access to funding assistance from the state pollution control bond fund. The Department may accept assurance of development of such financing plan if necessary to prevent delay in projects already planned and in the process of implementation. The Department will work with the League of Oregon Cities and others as necessary to aid in the development of financing plans.

3. No sewerage utility should assume that it will receive grant assistance to aid in addressing its planning and construction needs.

(3) Increased surveillance should be undertaken to maintain the reliability of pump stations 1 and 2.

If you have any questions, please contact me in Eugene at 686-7601.

Sincerely,

Larry Lowenkron

Larry Lowenkron
Regional Engineer

LL/jnf
cc: DEQ/Water Quality Division
DEQ/WVRS:JEB & DW

ATTACHMENT C

ROBERT W. STRAUB
GOVERNOR

DEPARTMENT OF ENVIRONMENTAL QUALITY

[redacted] WILLAMETTE VALLEY REGION - Eugene

16 OAKWAY MALL • EUGENE, OREGON • 97401 • Phone (503) 686-7601

June 23, 1978

Phillip K. Kushlan
City Manager
City of Cottage Grove
400 Main Street
Cottage Grove, Oregon 97424

Dear Phil:

The Department has reviewed the program undertaken by the City of Cottage Grove, dated 5/26/78, to reduce and/or minimize loading on the municipal sewage treatment plant. That program includes the following:

(1) City Council adoption of a grease/garbage reduction program. All commerical garbage grinders shall be prohibited. Grease traps shall be installed and maintained in all commercial eating establishments.

(2) Additional connections to the sanitary sewage system shall be limited to the equivalent of 250 single family dwellings until June 30, 1981.

(3) Reduction in infiltration and inflow into the sanitary system.

We feel that the plan as proposed is satisfactory with the following additions:

(1) The effectiveness of the program should be reviewed at regular intervals. During the first year, connections should be limited to the proposed 78.5 single family equivalent dwelling units. This would allow for a rational approach to future additions.

(2) A report should be submitted to this office quarterly regarding progress in enforcement of grease/garbage removal and storm water separation. Discharge monitoring reports will also be reviewed as to the effectiveness of these programs.

62

Roger Sinclair is responding to the Portland Office regarding the eligibility of the sewer system work. After a complete determination has been made, the City's statement on separation will be brought into accord with the eligibility test and the facility report.

Please call if you have any further needs for your review.

Sincerely,

Phillip K. Kushlan (BEJ)
City Manager

Enclosures

PKK:jb

ATTACHMENT B

City of Cottage Grove

400 Main Street Cottage Grove, Oregon 97424

OFFICE OF THE CITY MANAGER May 25, 1978

Larry Lowenkron
Regional Engineer
Department of Enviornmental Quality
16 Oakway Mall
Eugene, Oregon 97401

Dear Larry:

In response to your March 27, 1978 letter, the City of Cottage Grove submits the enclosed program for formal Department response. A few notes of explanation are called for to better delineate the action taken by the Council.

The Council used the analysis to take several actions:

1. Adopt the grease/garbage reduction program.

2. Establish a 250 equivalent single family hook-up between April 17, 1978 to June 30, 1981.

3. Make an allocation to specific development for each year. (Please note that it is the wish of the Council that the specific allocation not be included in the presentation to DEQ; the Council preferred to set the maximum and retain some flexibility in the administration of the maximum.)

4. Charge an additional $100.00/dwelling for off setting the costs of grease garbage enforcement.

5. Adopted the steps for water removal listed in the text.

The repair mentioned that would show substantial reduction is primarily on 16th Street. Additionally it appears that South 6th Street, which is a county road, will be improved under an agreement with Lane County. It is my intent to provide a storm sewer in that project.

DEPARTMENT OF ENVIRONMENTAL QUALITY

Date: _____

By William H. Young
WILLIAM H. YOUNG
Director

RESPONDENT

Date: Oct. 24, 1977

By _____
Name
Title City Manager

FINAL ORDER

IT IS SO ORDERED:

ENVIRONMENTAL QUALITY COMMISSION

Date: November 29, 1977

By William H. Young
WILLIAM H. YOUNG, Director
Department of Environmental Quality
Pursuant to OAR 340-11-136(1)

MC-33

grant offer.

(d) Complete construction within eighteen (18) months of Step III grant offer.

(e) Demonstrate compliance with the final effluent limitations specified in Schedule A of the Permit within sixty (60) days of completing construction.

(2) Requiring Respondent to meet the interim effluent limitations set forth in Paragraph 4 above until the date set in the schedule in Paragraph A(1) above for achieving compliance with the final effluent limitations.

(3) Requiring Respondent to comply with all the terms, schedules and conditions of the Permit, except those modified by Paragraphs A(1) and (2) above.

B. Regarding the violations set forth in Paragraph 5 above, which are expressly settled herein, the parties hereby waive any and all of their rights under United States and Oregon Constitutions, statutes and administrative rules and regulations to any and all notices, hearings, judicial review, and to service of a copy of the final order herein.

C. Respondent acknowledges that it has actual notice of the contents and requirements of this stipulated and final order and that failure to fulfill any of the requirements hereof would constitute a violation of this stipulated final order. Therefore, should Respondent commit any violation of this stipulated final order, Respondent hereby waives any rights it might then have to any and all ORS 468.125(1) advance notices prior to the assessment of civil penalties for any and all such violations. However, Respondent does not waive its rights to any and all ORS 468.135 (1) notices of assessment of civil penalty for any and all violations of this stipulated final order.

///

Grant Application as required by Condition S1.

6. The Department and Respondent also recognize that the Environmental Quality Commission has the power to impose a civil penalty and to issue an abatement order for any such violation. Therefore, pursuant to ORS 183.415(4), the Department and Respondent wish to resolve those violations in advance by stipulated final order requiring certain action, and waiving certain legal rights to notices, answers, hearings and judicial review on these matters.

7. The Department and Respondent intend to limit the violations which this stipulated final order will settle to all those violations specified in Paragraph 5 above, occurring through (a) the date that compliance with all effluent limitations is required, as specified in Paragraph A(1) below, or (b) the date upon which the Permit is presently scheduled to expire, whichever first occurs.

8. This stipulated final order is not intended to settle any violation of any effluent limitations set forth in Paragraph 4 above. Furthermore, this stipulated final order is not intended to limit, in any way, the Department's right to proceed against Respondent in any forum for any past or future violation not expressly settled herein.

NOW THEREFORE, it is stipulated and agreed that:

A. The Environmental Quality Commission shall issue a final order:

(1) Requiring Respondent to comply with the following schedule:

(a) Submit proper and complete Step II grant application by October 31, 1977.

(b) Submit complete and biddable final plans and specifications and a proper and complete Step III grant application within ten (10) months of Step II grant offer.

(c) Start construction within four (4) months of Step III

3. Respondent proposes to comply with all the above effluent limitations of its Permit by constructing and operating a new or modified waste water treatment facility. Respondent has not completed construction and has not commenced operation thereof.

4. Respondent presently is capable of treating its effluent so as to meet the following effluent limitations, measured as specified in the Permit:

Parameter	Average Effluent Concentrations Monthly	Weekly	Effluent Loadings Monthly Average kg/day (lb/day)		Weekly Average kg/day (lb/day)		Daily Maximum kg	(lbs)
Jun 1 - Oct 31:								
BOD	35mg/l	50mg/l	199	(438)	284	(626)	398	(876)
TSS	35mg/l	50mg/l	199	(438)	284	(626)	398	(876)
Nov 1 - May 31:								
BOD	35mg/l	50mg/l	199	(438)	284	(626)	398	(876)
TSS	35mg/l	50mg/l	199	(438)	284	(626)	398	(876)

5. The Department and Respondent recognize and admit that:

a. Until the new or modified waste water treatment facility is completed and put into full operation, Respondent will violate the effluent limitations set forth in Paragraph 2 above the vast majority, if not all, of the time that any effluent is discharged.

b. Respondent has committed violations of its NPDES Permit No. 1761-J and related statutes and regulations.

1) Effluent violations have been disclosed in Respondent's waste discharge monitoring reports to the Department, covering the period from October 17, 1974 through the date which the order below is issued by the Environmental Quality Commission.

2) Respondent did not submit a proper and complete Step II

ATTACHMENT A

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY, of the STATE OF OREGON, Department, v. CITY OF COTTAGE GROVE, Respondent.	)	STIPULATION AND FINAL ORDER WQ-MWR-77-250 LANE COUNTY

WHEREAS

1. The Department of Environmental Quality ("Department") will soon issue National Pollutant Discharge Elimination System Waste Discharge Permit ("Permit") Number _____(to be assigned upon issuance of the Permit) to CITY OF COTTAGE GROVE ("Respondent") pursuant to Oregon Revised Statutes ("ORS") 468.740 and the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500. The Permit authorizes the Respondent to construct, install, modify or operate waste water treatment, control and disposal facilities and discharge adequately treated waste waters into waters of the State in conformance with the requirements, limitations and conditions set forth in the Permit. The Permit expires on October 31, 1982.

2. Condition 1 of Schedule A of the Permit does not allow Respondent to exceed the following waste discharge limitations after the Permit issuance date:

	Average Effluent Concentrations		Effluent Loadings Monthly Average		Weekly Average		Daily Maximum	
Parameter	Monthly	Weekly	kg/day	(lb/day)	kg/day	(lb/day)	kg	(lbs)
Jun 1 - Oct 31:								
BOD	30mg/l	45mg/l	170	(375)	255	(563)	340	(750)
TSS	30mg/l	45mg/l	170	(375)	255	(563)	340	(750)
Nov 1 - May 31:								
BOD	30mg/l	45mg/l	170	(375)	255	(563)	340	(750)
TSS	30mg/l	45mg/l	170	(375)	255	(563)	340	(750)

///

basis. It is also basically consistent with the Facilities Plan Report adopted by the City.

2. The proposed program will reduce, and eventually eliminate, bypassing and will improve water quality.

3. Grant eligibility will be maintained until progress on plant construction exceeds the eligibility criteria.

4. Future improvements can be planned, financed and constructed without the need for additional connection limitation programs, if accomplished in a timely manner.

5. Department staff will need to review detailed engineering plans to make a final determination on specifics.

SUMMATION

1. The City of Cottage Grove has operated their sewage treatment plant under a Stipulation and Final Order, with construction compliance schedules linked to the EPA Construction Grants Program. It is not likely that further progress will occur under the current program.

2. In accordance with EQC policy, the City has proposed an alternate program, to be locally financed, which will eventually eliminate bypassing and effluent violations.

DIRECTOR'S RECOMMENDATIONS

1. Based on the Summation, it is recommended that the Commission approve, in concept, the alternative sewerage system improvement program proposed by the City of Cottage Grove.

2. Direct the Department to enter into a revised Stipulated Agreement and its attendant negotiations after the May 18 election to reflect details of this program or an appropriate alternative.

Bill

William H. Young
Director

Attachments: (6)
- Attachment A: Stipulation and Final Order
- Attachment B: Cottage Grove Limitation Program
- Attachment C: DEQ Concurrence with Limitation Program
- Attachment D: DEQ Policy
- Attachment E: Alternative Sewerage Proposal
- Attachment F: Acknowledgement of Proposal

John E. Borden:l
378-8240
March 31, 1982
WL1512

In accordance with that policy, the City has proposed a locally financed program to improve their sewerage system and submitted it for approval (Attachment E).

PROPOSED PROGRAM

The proposed improvement program consists of the following four elements:

1. Interceptor Sewer: This will eliminate two pump stations that frequently bypass raw sewage.

2. Collection System Repair and Separation: Storm sewers will be constructed in the downtown area so as to eliminate combined sewers. Additional work may be done to seal sanitary sewers, so as to prevent excess infiltration.

3. Sewage Treatment Plant Expansion: A scaled-down version of the Step II designed sewage treatment plant would be constructed. The design would be for a "10-year" vs. a "20-year" population. Treated, chlorinated effluent would be discharged to a polishing pond via a monitored open channel. The polishing pond would provide back-up for upsets and potential additional treatment prior to discharging to the Row River. It may also be possible to dispose of the effluent during the summer by spray irrigation.

4. Sewer Maintenance: During the summer, a program will be initiated to flush sanitary sewers to prevent solids buildup. Additionally, approximately ten metering manholes will be constructed at specific locations to monitor specific commercial establishments that may contribute significant loads.

   Smoke testing will be conducted on designated portions of the collection system and, if necessary, internal inspection will be performed to identify and repair broken lines.

The City proposes to finance these improvements by voting on May 18, 1982, to release the $2,500,000 bond from its "local share" restricted use. Additional local money from other funds will also be used.

If the election is successful and no undue delay occurs, the City should be able to take advantage of funds presently available at approximately 7.6 percent in the Pollution Control Bond Fund.

DEPARTMENT EVALUATION

The Department staff has reviewed the proposed program, and offers the following evaluation:

1. The proposed program is consistent with EQC policy, where phased construction will be financed with local funding on a pay-as-you-go

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: Director

Subject: Agenda Item No. O, April 16, 1982, EQC Meeting

CITY OF COTTAGE GROVE: Sewerage System Improvement Program

BACKGROUND

The City of Cottage Grove operates a 1.5 MGD sewage treatment plant. Violations of the NPDES Waste Discharge Permit occur frequently. In addition to exceeding effluent limits, these violations consist of bypassing raw sewage at various pump stations and the sewage treatment plant. On November 29, 1977, the Commission issued a Stipulation and Final Order (Attachment A) in an effort to secure compliance.

The compliance schedules of both the Stipulated Agreement and the NPDES Permit link sewerage system improvements to the EPA Construction Grants Program. The Facilities Plan Report (FPR) and Sewerage System Evaluation Survey (SSES) were completed and adopted by the City on July 30, 1979. Step II design has been substantially completed. Plans and specifications for interceptor and grant eligible rehabilitation were approved by DEQ on September 18, 1981.

The City and DEQ staff discussed remedial action at the time of Step II grant application. In mid-1978, the City voluntarily adopted a sewer system connection limitation program. This program established a limit of 250 single-family dwellings or until June 30, 1981 (Attachment B). Department staff concurred with the sewer connection limitation program proposed (Attachment C).

A $2,500,000 bond to finance system improvements was passed on March 31, 1981. This bond would only be used as the local share and not used to finance improvements independent of Construction Grant monies.

The connection limitation program was extended to October 31, 1981. City officials and staff met with Department staff and discussed methods of improving the system. The EQC Policy on Sewerage Works Planning and Construction (Attachment D) adopted on October 9, 1981, was reviewed.

ATTACHMENT III
3/26/82

VISIBILITY MONITORING TASK FORCE RECOMMENDATIONS ON CHANGES TO OPTIMIZE VISIBILITY MONITORING PROGRAM

1. Recommended additions for which no additional funding is required:

Element	Proposed Siting	Implementation Date
Human Visibility Measurements at Present Telephotometer Sites	4 Telephotometer Sites	1982
Acoustic Sounder	Redmond	1982
Human Visibility Measurements	All Class I Areas	1983 or 1984

2. Recommended additions for 1982 monitoring season which require additional funding:

Element	Proposed Siting	Priority	Implementation Date	Estimated Cost
Daily Particulate Monitoring	2 Particulate Sites	1	1982	$4000
Aircraft Observation	Cascade Mountains	2	1982	$5000
Pibal Measurements	Redmond, Detroit Lk. Zigzag	3	1982	$4500

3. Recommendations for extending monitoring past 1982 and estimates of additional funding requirements:

Element	Proposed Siting	Priority	Implementation Date	Estimated Cost
Continue recommended monitoring system 3-5 years(1)	All 1982 sites	High	1983	$25,500/yr
Monitor June 15-October 15	All sites	Med.	1983	$ 3,500/yr
Additional Particulate Monitor	Crater Lake	Low	1983	$24,000/1st $3,500/following/years
Background Nephelometer	Undecided	Low	?	$10,000/1st

(1) After the first years monitoring, the effectiveness of each element in the system will be analyzed. If a monitoring method is deemed ineffective and as a result is eliminated, the estimated costs will be less. If insufficient funds are available to continue operating all elements of the plan, the visibility task force will meet again to decide which of the recommended elements should be dropped.

Description of Currently Funded Visibility Monitoring System

Proposed Site	Instrument	Property Measured	[1]Operating Schedule
[2]Mt. Hood	Telephotometer	Contrast	Daily (0900, 1200, 1500)
	Camera	Visual Quality	Daily (0900, 1200, 1500)
	Psychrometer	Humidity	Daily (0900, 1200, 1500)
	Human Observer	Meteorological Conditions	Daily (0900, 1200, 1500)
Timberline, Mt. Hood	Impactor	Fine Particles	Every 6th Day (Daylight Hrs)
	Nephelometer	Scattering Coefficient	Continuous
	Anemometer & Vane	Wind Speed & Direction	Continuous
Black Butte Lookout	Telephotometer	Contrast	Daily (0900, 1200, 1500)
	Camera	Visual Quality	Daily (0900, 1200, 1500)
	Psychrometer	Humidity	Daily (0900, 1200, 1500)
	Human Observer	Meteorological Conditions	Daily (0900, 1200, 1500)
Hoodoo Butte	Impactor	Fine Particles	Every 6th Day (Daylight Hrs)
	Nephelometer	Scattering Coefficient	Continuous
	Anemometer & Vane	Wind Speed & Direction	Continuous
Crater Lake	Telephotometer	Contrast	Daily (0900, 1500)
	Camera	Visual Quality	Daily (0900, 1500)
	Psychrometer	Humidity	Daily (0900, 1500)
	Human Observer	Meteorological Conditions	Daily (0900, 1500)
[3]Wallowa Mts/Hells Canyon	Telephotometer	Contrast	Daily (0900, 1200, 1500)
	Camera	Visual Quality	Daily (0900, 1200, 1500)
	Psychrometer	Humidity	Daily (0900, 1200, 1500)
	Human Observer	Meteorological Conditiions	Daily (0900, 1200, 1500)

1. Monitoring is currently funded from July 1- September 30
2. Possible Sites: Hickman Butte, Clear Lake, Flag Point, Sisi Butte
3. Possible Sites: Red Hill, Harl Butte, Point Prominence, Russel Mt., Mule Peak